General Vacancies

Colleges and Departments of [illegible]

Colleges of Further Education

Colleges of Education

© TIMES NEWSPAPERS LIMITED, 1976
Printed and Published by Times Newspapers Limited at New Printing House Square, Gray's Inn Road, London WC1X 8EZ, England, Friday, April 9, 1976. Registered as a newspaper at the Post Office. Second-class postage paid at New York, NY. Price 30c.

THE TIMES Higher Education SUPPLEMENT

April 9, 1976. No. 233 — Price 15p

Crisis demands efficient teaching—Fowler

by Patricia Santinelli

Present economic problems and the possibility of an even more serious situation in the future made it imperative that teaching methods in higher education should be used to maximum efficiency, Mr Fowler said this week.

The Minister for higher education was speaking on cost effectiveness at a conference on the efficiency of teaching methods in higher education, organized by the University of London's Institute of Education, Teaching Methods Unit.

Mr Fowler said that cost effectiveness of teaching methods was often prevented by the misuse of highly qualified manpower and the setting up of undersubscribed courses.

"The relative price of the cassette tape recorder has come down sharply", he said. "At the same time the salaries of staff have risen considerably in real terms. . . . It is more important than ever to examine the value of, for example, the traditional lecture as an effective use of highly qualified manpower."

He called for more collaboration on resources in all institutions as well as acceptance by academics of collaboratively produced materials such as those of the Open University.

There would also be advantages in setting up bilateral arrangements between the OU and other institutions for staff exchanges to learn about course design and production.

Another important economy could be achieved by producing material for modular degree courses and credit system courses. This would help cost effectiveness by enabling easy transfer of part-time students from one institution to another, thereby reducing the drop-out rate.

"It is possible to envisage transfer of full-time students to make available specialist teaching in a particular sub-discipline which can be offered economically in no more than a few centres", Mr Fowler said.

Educational technology in the form of the Department of Education's sponsored computer programme and other developments such as programmed learning might eventually contribute to a reduction in costs. However it would be wise to examine and evaluate these materials thoroughly before making them available generally.

Research had also shown that substantial economies could be made in higher education staff costs and use of space without loss of efficiency.

"The biggest problem about applying these findings is that they are largely unknown to those who should be acting upon them", Mr Fowler commented.

Universities defend 'academic challenge' of O-levels

by David Walker

Mounting concern in the universities over proposals to replace school O-level examinations reached a head this week with a statement from the Committee of Vice-Chancellors and Principals urging that there should be a "proper academic challenge" to the more able pupils.

The CVCP said: "While they are sympathetic towards some of the objectives of curricula reform in schools, the universities consider that a lowering of standards of academic achievement among the more able boys and girls would adversely affect the quality and proficiency of their graduates and would threaten the survival of the present uniquely short three-year degree course."

The Schools Council, which has proposed a common examination for 16 year olds, has been told there should be no decision about changes without further detailed discussion with the universities.

The CVCP statement, which drew on advice from the Standing Conference on University Entrance, took particular issue with the growth of "Mode III" examining in schools. Under this scheme teachers set their own syllabuses, with the approval of the public examining body.

The CVCP had "particular misgivings" about the proliferation of this form of examination and emphasized the need for effective monitoring of standards. It declared its faith in the existing GCE boards, most of which are based in the universities.

"The universities wish to reaffirm their confidence in this system, based as it is on cooperation between teachers in school and in higher and further education. They are appreciative of the contribution that the boards have made to curriculum development and they would be greatly perturbed if such continuity of endeavour were to be jeopardized by the introduction of sweeping administrative changes.

"The universities would be opposed to anything other than evolutionary progress involving a continuation and development of the established cooperation between GCE and Certificate of Secondary Education boards."

The CVCP statement follows remarks by Sir Frederick Dainton, chairman of the University Grants Committee, suggesting that university courses might have to be lengthened to provide "remedial" courses for 18 year olds ill-equipped for university education. In a debate in the House of Lords last week, Lord James, former vice-chancellor of York University who gave his name to the 1972 report on teacher education, said that egalitarian changes forced on the schools adversely affected the standard of those entering higher education.

In recent weeks most of the university school examination boards have come out strongly in opposition to the Schools Council's scheme. They accept that the system of GCE and CSE examinations should be tidied up, but reject the idea of a common examination.

The Cambridge University Local Examinations Syndicate said last week that it was in favour of examinations pitched at different levels but with integrated syllabuses and a common grading scheme. It laid emphasis on the long-standing experience of the university boards, whose role has come under attack from the teachers' trade unions which dominate the Schools Council.

The Cambridge Syndicate said: "Over the years the boards have built up close relationships with the schools they examine and have a great deal of knowledge about them. Roughly the same type of candidate has been examined so that there has been continuity in the demands made by syllabuses and question papers and valuable statistical information has been built up. All these factors have helped in the attempt to maintain an even standard.

"The fact that universities, independent bodies of academic distinction have guaranteed that standard as representing a worthwhile achievement has helped it to gain recognition."

Other GCE examination boards such as the Southern Universities Joint Board, representing Bath, Bristol, Exeter, Reading, Southampton, and Surrey, have replied in similar vein.

Today the Association of University Teachers will decide whether or not to offer evidence to the Schools Council on this question. Professor Bill Wallace, of the New University of Ulster, the AUT nominee on the Schools Council, told the *The THES* that most university teachers would support the idea that there should be greater breadth in the school curriculum, but admitted there were special problems in areas like mathematics and the modern languages where there had been concern about the standard of university entrants.

He said the AUT's main job was to help protect those school pupils who would go on to university.

Polys urged to end advertising

The Committee of Directors of Polytechnics has recommended that in future polytechnics should not advertise their courses nationally, except in the case of new ones. It is estimated that this could save more than £100,000 a year.

An advertising convention along those lines and similar to that operated by the universities was proposed at a meeting of the committee in February. Twenty-two polytechnics have since given their support, and another four have indicated that they are unlikely to depart from the spirit of the convention.

Instead, the committee is to produce a courses supplement to the summer edition of the CDP's new journal, *Focus on Polytechnics*, which will give details of courses which still have vacancies in the autumn.

The decision results from the ineffectiveness of advertisements that have been placed in the national press so far, according to Sir Norman Lindop, director of Hatfield Polytechnic, and a member of the committee.

The committee had paid particular attention to the results of the block advertisement placed in Sunday papers over the past two or three years, and had found no real evidence that they had attracted extra students, he said.

Two polytechnics, Newcastle and North East London, have said that they are not willing to be bound by the convention.

'Abolish all exams' NUS demands

A campaign to reform the curriculum of higher education was launched this week by the National Union of Students. The union is urging abolition of all competitive examinations and course gradings, and their replacement by a wide range of continuous assessment and cooperative projects.

A motion passed at the union's conference in Llandudno said: "Formal examinations mainly test candidates' assimilation and recall abilities and performance in false stress conditions. They bear no direct relevance to research abilities or to aptitude for certain areas of employment.

"Continuous assessment can provide more opportunities for the student to demonstrate true ability and should form an integral part of education."

Report, page 3

Lecturing could become 'geriatric career'

Education could become an inflexible "geriatric" service with blocked promotion and very low morale, according to an analysis of the Government's spending plans by the Centre for Studies in Social Policy.

In its annual review of the expenditure White Paper, members of the centre led by Mr Rudolf Klein say there is a particular danger for the universities in the absence of fast growth rates and the consequent influx of new recruits.

They argue: "The exceptionally fast rate of expansion in the 1960s threatens to create a major crisis of frustration if all those appointed to top jobs in the days of optimism remain there to block promotion, at a time when a reduced rate of expansion offers few other opportunities."

The remedy is perhaps the abolition of security of tenure. Professors should be given contracts for a limited term of years rather than the freehold of their jobs on the basis of life-long tenure.

However the authors deny this is any way to achieve the Government's declared aim of shaking out the public services and encouraging the movement of manpower into industry.

Instead, redundancies should be concentrated at the younger end of the age spectrum among those able to adapt to new skills and be geographically and occupationally mobile.

"Certainly the thought of 60-year-old ex-civil servants or former local government officials personally leading a sales drive in the remoter areas of the Middle East—or manning the ladies in a machine tool factory—strains the most fertile imagination", the authors say.

Constraints and Choices: Social Policy and Public Expenditure 1976. Centre for Studies in Social Policy, £2.

Contents

Fill empty places with mature students, universities urged

by Sue Reid

The chairman of the TUC education committee has called on universities to fill empty places by recruiting more mature students.

Speaking at the annual conference of university convocations at Bradford University last weekend, Mrs Marie Patterson said that mature students had a good record of academic success even if they entered university without formal qualifications.

Since 1947, 739 mature students had entered university without formal qualifications and of the 582 who had completed their courses so far 506 had graduated with honours and 52 with first class honours. This, said Mrs Patterson, suggested that universities should look again at the entry qualifications regarding mature students.

She told the conference, which was discussing the role of the university in modern society, that more universities should examine the possibility of introducing part-time undergraduate courses as Kent University was now proposing.

The TUC wanted to see more working people within the university fold. There had been very little increase in the number of working class children entering university over the last 40 years. In the 1930's 25 per cent of the children of manual workers entered university and today the figure had only risen to 28 per cent.

Commenting on trade union education Mrs Patterson, former chairman of the TUC said that the TUC welcomed a close relationship with university extra-mural departments although these were considered the poor relation of universities in many cases.

She said that secondary schools were so divorced from the realities of industry and commerce that they inculcated into able pupils the feeling that they should turn only towards the ivory towers of universities.

She concluded that it was useless trying to introduce manpower planning into universities unless there was some indication that they were going to respond to these resource requirements. There was going to have to be some rationalization and reorganization within higher education if universities were going to have a place in modern society.

Mrs Marie Patterson: "Good record for mature students"

Professor J. C. Wood, of Sheffield University, said that the enormous expansion in further education numbers post-Robbins and the subsequent economic decline had led to a concentration upon resource problems in universities.

The colleges of advanced technology had become universities and the polytechnics had become major degree-awarding bodies through the Council for National Academic Awards. The colleges of higher education and colleges of technology were also expanding fast as degree-awarding institutions.

If one considered all the degree-awarding institutions in the further education sector then the explosion had been enormous, explained Professor Wood. He added that although it had been said that the different fields of higher education should specialize in different things no one quite knew who was doing what.

Advocating that universities should be maintained as centres of elitism, Professor Wood said that the polytechnics wanted to be like the university sector and it was going to take an enormous amount of direction to keep the two apart.

The single disciplinary core of a university was an essential part of these institutions. They were not fertile ground for multi-disciplinary teaching, apart from exceptional cases, although the polytechnics were. But he added that recently the polytechnics had tried to move away from inter-disciplinary teaching towards single-disciplinary courses and teaching.

Professor Wood added that the original ivory tower concept of universities had its values but this could not be spread throughout the whole of the higher-education sector. The polytechnics were concerned with society and the universities were not.

Mr David Hills, an industrialist, told the conference that education was still far too narrow. He said graduates should be expected to take an interest in public affairs, local government, trade union activities and a range of other subjects even if they had specialized in one academic field at university.

He expressed concern at the swing away from industry and the falling number of graduates in mathematics and physics. The wealth of the country came from industry and without that wealth there would be a lack of resources for anything, including higher education.

The conference discussed the levels of specialization needed on degree courses in the future after Mr John Parsons, an employment consultant and member of the Birmingham University convocation, had advocated that universities graduated too many "super-specialists".

This, he said, was a grave mistake. Graduates were being used for very ordinary jobs because they were overspecialized.

He added that "super specialist" first degree should be abolished. Specialization was needed at post-graduate level only while first degree students should be trained on the broadest possible level.

DES lobby call over higher overseas student fees

by David Hencke

An appeal to all organizations concerned with overseas students to lobby the Department of Education and Science, the Foreign Office and the Ministry of Overseas Development before the Government decides to put up student fees was made by Mr Rupert Bristow, deputy secretary of the United Kingdom Council for Overseas Students, last week.

He told a joint meeting of the Royal Commonwealth Society and the Council for Education in the Commonwealth in London that there was still time for organizations to make their views known.

Overseas and home student fees have already been increased by 30 per cent from next September, but special increases for overseas students are under consideration.

Mr Anthony Kershaw, MP, parliamentary chairman of the Council for Education in the Commonwealth, said he hoped that the Government would delay its plans for further fees increases for overseas students until the vice-chancellors had considered the proposals.

The meeting was also addressed by Dr John Dubbey, of the mathematics department of South Bank Polytechnic, and Mr Trevor Phillips, president of London University Students' Union, who is the NUS executive member responsible for overseas students. Both speakers criticized Britain's attitudes towards overseas students.

Student proportion will fall

The proportion of students in the rest of the population will be less than at present until the year 2011 at least, according to a recent projection by the Office of Population, Censuses and Surveys.

Writing in the journal *Population Trends*, Mr Norman Davis of the population statistics division of the OPCS, predicts that unless there is a voluntary increase in the rate at which those above the school leaving age continue in full-time education, the ratio of students to the total population will fall sharply in the 1980s.

It will recover slightly by the year 2000, but could easily fall again and is unlikely to rise above today's levels by the early decades of the twenty-first century.

This assessment is based on the assumption that the school-leaving age will not be raised, and that there will be no marked shift in pupils' desire to go on to universities and colleges.

Mr Davis predicts that during the next 25 years there will be several significant changes in our population structure. The balance between people who work and those who are "dependent" both the old and the young, is likely to improve. The number of live births per total population is also likely to increase dramatically between now and the end of the 1990s, a movement which would have great impact ten years later.

Britain's changing age structure: Population Trends 3, by Norman Davis, HMSO £2.

Manuscripts gift

The original manuscripts of Howard Spring, the novelist, have been presented to the John Rylands University Library of Manchester. The collection, which includes many of probably his most popular works, including *Fame is the Spur*, which was published in 1940.

Royal Gate

Queen's College, of London University, Institute of Advanced Legal Studies, on Russell Square, was opened last week by Queen Elizabeth the Queen Mother, who is Chancellor of the university.

'Secret police kept watch on deportees'

by Sue Reid

A secret police network was in operation on the University of Zambia campus before its closure in February, according to the three lecturers deported from Zambia last week.

The trio, who include Dr Lionel Cliffe, a British political scientist, and Mr Robert Molteno, a leading South African academic, said on arrival in London that there was obviously some police activity at the university, although the extent was not known.

The lecturers, who were detained in Zambia for more than six weeks after a renewal of the country's state of emergency, were accused of being the "paid agents of foreign powers" and instrumental in student demonstrations in favour of the MPLA in Angola. They deny this. During their detention no official charges were brought.

But the lecturers now claim that before their arrest their activities both on and off the campus were probably monitored by police informers.

Mr Robert Molteno, who is being allowed to stay in Britain for the next year, said that during his detention he was closely interrogated about a talk he had given to the Historical Association of Zambia on detente in southern Africa in 1974. A student from the university, previously suspected of being an informant, was one of his interrogators.

Dr Cliffe said at a press conference: "Our detention following the declaration of the state of emergency was not just as a result of the demonstration but because of the underlying economic difficulties in Zambia and the present crisis situation. We were used as scapegoats and linked with the students as part of some kind of foreign plot although we were not directly involved with students' activities."

Dr Cliffe, a reader in political studies at the university since 1974, and Mr Molteno, a lecturer in politics and an authority on southern Africa, are deeply concerned about the future autonomy of the university.

They spoke of internal unrest over course rationalization within the School of Humanities and Social Sciences, which had led to a rift between Professor Eyo Ndem, dean of the school, and the expatriate academics. After the arrest of Dr Cliffe, the first lecturer to be detained, the students at the university called a general strike in protest and called for the dismissal of Professor Ndem, who they claimed was using the "dirty instrument of colour to further his evil career ambitions".

The university's senior staff association and other academics, including Zambians, also condemned Dr Cliffe's arrest, which they said imperilled the academic freedom of the university and carried grave implications for maintaining standards of excellence.

The University of Zambia, first opened in 1966, was renowned for its autonomy and academic freedom. But now there are fears of increased Government interference when it reopens.

Mr Molteno told the *THES*: [illegible] Marxist, lecturer in [illegible] at Manchester university and a member of the Association of University Teachers national executive, told the conference that the change over five years from a 31 per cent minority to a 63 per cent majority of AUT members in favour of joining the TUC could not be explained by turnover of staff. The universities had frozen posts for half of the period. A third of the members had changed their minds, he said.

Tribune MP attacks cuts

by John Ross

In a strong attack on the recent public expenditure White Paper, Mr Stan Newens, Labour MP for Harlow and a member of the Tribune group, criticized the Government for giving priority to the matriculation programme while cutting spending in areas such as education.

Speaking in London on Saturday at an education conference organized by the TUC South-East Regional Council, Mr Newens said: "The continued pressure for education cuts is welcomed by some authorities with a relish paralleled by those who call for more spending on defence and aid to independent and public schools in the same breath as they call for cuts in public expenditure".

Calling for an alternative economic strategy, he said: "Is it really such a great priority that we should make it illegal to use the Imperial system of weights and measures, and spend money changing all our signposts from miles to kilometres, while cutting back in education spending?"

Mr Newens described the closing of "teacher-training colleges as "utter folly." "The buoyant confidence of the 1950s had given way to the pessimism of the 1970s. We said, "If we become [illegible] hope, we can [illegible] the hangover [illegible] expectations [illegible] it [illegible] of pessimism [illegible]."

[illegible] Marshall, lecturer in [illegible] at Manchester university and a member of the Association of University Teachers national executive, told the conference that the change over five years from a 31 per cent minority to a 63 per cent majority of AUT members in favour of joining the TUC could not be explained by turnover of staff. The universities had frozen posts for half of the period. A third of the members had changed their minds, he said.

News in brief

Criminology centre opens at Sheffield

Sheffield University's new centre for criminological studies was opened last week by Sir Arthur James, Lord Justice of Appeal.

Dr A. E. Bottoms has been appointed as its first director, which is only the third of its kind in a British university, the other being the Institute of Criminology at Cambridge and the department of criminology at Edinburgh.

Major research projects at the centre include the defendant's, juvenile justice and social ideology, and measuring the seriousness of crimes.

Computer changeover

The Open University's data processing division has just completed the conversion of its 1200 operational computer programmes from a 1900 to a Univac 1100 system.

Data processing at the university forms the basis for nearly all administration of its 60,000 students and more than 7,000 staff. Applications include maintenance of student records, computer-marked assessments and payments, summer school fees, examinations, the allocation of students to courses and tutors, students, and financial and teaching systems.

Kent physics course

Kent University's physics laboratory, in conjunction with Christ Church College, a college of education in Canterbury, is to offer a part-time MSc and diploma course in physics and physics with education from October, 1976.

The courses are aimed at people in work who want to update their knowledge and improve their qualifications, such as those with science backgrounds teaching in schools or working in industry. The teaching will be in the evening and the work can be spread over two, three, or even four years.

Right note

The University of East Anglia music centre has been given a grant for its electronic music studio by Willis, Faber and Dumas Limited, an international insurance brokerage. The machine, a Computer Automatic 216, will control an electronic music synthesizer of the type used by the BBC radiophonic workshop to produce electronic music for the *Dr Who* series.

OU diploma course

The Open University has been given £35,000 by the Department of Education and Science for its Diploma in Reading Development—the university's first diploma course. It will be equivalent to a one-year full-time course, and students will be able to complete it in two to four years.

TEC reconstituted

Mr Mulley, the Education Secretary, has reconstituted the technical Education Council (TEC) which completed its first three years [illegible] March 1976. He has appointed Mr Ian Raine, a governor of Lancaster Polytechnic, as the new part-time chairman for a three-year period from April 1, 1976, in succession to Mr A. L. Burton.

Skin research success

Researchers at Dundee University have developed new techniques in skin grafting which overcome problems of rejection by the body.

The results raise the possibility of creating "skin banks" for treating patients who have suffered extensive damage, for example, from severe burning.

Business studies course

Newcastle Polytechnic and Cardiff Technical College are to jointly launch the country's first full time extra-mural Higher National Diploma course in business studies. The two-year course, to be based at Carlisle, starts in September and will be the only full-time higher level business course offered in Cumbria.

Dainton warning over university expansion

by David Walker

Universities should beware of dealing themselves a "self-inflicted wound" by pressing ahead too fast with the expansion of student numbers, Sir Frederick Dainton, chairman of the University Grants Committee warned a conference at Heriot-Watt University last weekend.

He told members of the University Teachers Group, who were discussing the lessons to be taken from the expansion of higher education, that in retrospect the new universities had been created too rapidly. There should perhaps have been three years' gap between each new foundation. He urged that to maintain "vitality of ideas", the UGC should keep a reserve fund to promote educational innovation.

"We can only maintain vitality by ensuring a steady flow of bright young people into academic posts—but the Association of University Teachers with its policies on promotion does not seem to want this. There is no logical way of keeping a constant promotion rate," he added.

Describing one of the roles of the UGC as a mechanism for contraception—preventing the birth of unnecessary departments for which there was no student demand—Sir Frederick refused to accept that the future of either the universities or the UGC was gloomy.

"There are always threats," he said. "One sees this in the statements of ministers, some of whom think they can just issue directives about what is done in the universities, but their opinions have been known to change over time, often after consultations with the UGC.

"The power of government to effect change in all sectors of its spending is limited partly because there is so much fixed plant. Anyway the mechanism of the university works too well for there to be a chance of switching resources massively into a new sector of higher education."

Questioned about staff student ratios, Sir Frederick said that very early in his career he had a very high number of student contact hours yet that had been one of the most productive periods of his life. What was needed was determination and effort.

Dr Patrick Nuttgens, director of Leeds Polytechnic, told the conference that Sir Frederick's emphasis on the universities' freedom to teach and research what they wanted was their key difference from polytechnics. The polytechnics were set up as a response to the need for better professional and practical training.

He said it needed to be clearly stated that it was just as good to be a craftsman as an academic.

Dr Nuttgens said his major complaint was the freedom of the universities to start new courses or increase their student enrolment when the rational planning of the polytechnics was "a nightmare" and polytechnic student numbers were closely controlled by a series of government and advisory bodies.

He warned about the future of the art and design subjects. The age structure of staff in art and design was such that no new blood would be let in for at least 15 years. Many such departments were overstaffed, imbalance the overall staff-student ratio to the detriment of other departments.

The central theme of the UTG, which according to Dr Stephen Prickett, its chairman, is "a 1,000-strong non-sectarian discussion group, many of whose members are Christian", were student attitudes and defining the idea of the modern university.

Discussing students, Dr Earnest Rudd, reader in sociology at Essex University, argued that 1968 was the great turning point in student attitudes. Applications to read sociology, for example, dropped drastically as a result of press and television coverage of student unrest that year. The corpse of higher education was not yet dead, however, and there was more need than ever of university education that taught young people fundamental principles, allowing them to cope with the speed of change in the modern world.

The researches of Dr Dorothy Zinsky of Harvard University, which were described to the conference, showed that student attitudes changed quickly. The present cycle of student quietism, political apathy and interest in vocational education would shortly give way to a new era, possibly like that of the 1960s.

Professor Asa Briggs, retiring vice-chancellor of Sussex University, looked back on his intentions in the late 1950s to redraw the map of learning. What struck him was how little students had contributed to reforming the traditional British university curriculum. He suggested that the universities of the 1970s needed to guard against rigidities—a fixed amount of resources, fixed stock of buildings, and defensive trade union attitudes. The polytechnics ought to respond to opportunities for innovation in a way the "new universities" once did, he said.

Professor Briggs prophesied that university vice-chancellors would have to acquire more managerial skills. He saw the universities entering a period when they were going to have some of the bright young people for whom there were no posts.

Answering a question posed by Mr Brian MacArthur, editor of *The Times Higher Education Supplement*, on the future relations of the universities and the further education sector, Miss Marjorie Reeves, of St. Anne's College, Oxford, a founding member of the UTG, declared they should "muck in" with the system as a whole.

Dr Reeves emphasized that university teachers had to make an effort to recover public confidence in the universities: they had to explain higher education to the people who provided the funds. Universities were about curiosity, investigative enthusiasm, and personal enjoyment on the part of both student and teacher that enriched the whole life of the community.

Cabinet faces clash over Scottish universities

Disagreement in the Government over whether the Scottish universities should be administered by the national assembly proposed in the devolution White Paper has now reached Cabinet level.

Mr Benn, Energy Secretary, is understood to have told students and academics on a recent visit to Scotland that he favoured some form of national educational commission under the Scottish Assembly. Any change in the Government's position as laid down in the White Paper has been denied by Lord Crowther-Hunt, Minister in Mr Short's devolution unit.

But there is mounting pressure on the Government to change its mind. The annual conference of the Scottish Council of [illegible] last week approved a motion which stated that the universities must come under the control of the assembly.

Lord Crowther-Hunt is currently sounding university opinion on this question. After a recent visit to St Andrews University he will go on to Glasgow and Edinburgh. He will be told that although the Scottish university principals have declared in favour of the White Paper, many university teachers are having second thoughts.

Although a recent poll by the Association of University Teachers in Scotland showed a majority in favour, some academics feel the special relationship of the Scottish universities and the secondary schools could be threatened by a management paying them outside Scottish Council [illegible]

NUS officers: Charles Clarke (president), Sue Slipman (secretary), and Trevor Phillips (arens vice-president).

NUS picks new officers as Clarke warns Government of graduate unemployment

by David Hencke

More than one newly graduated student in every seven faces the prospect of unemployment this summer, Mr Charles Clarke, president of the National Union of Students, said in his opening address to the union's conference at Llandudno this week.

He warned that the Government's policies of restraint were creating higher unemployment, making it more difficult for existing students to live on inadequate grants and restricting the opportunities for teenagers to enter higher education.

He said that the "bulge" in the secondary school population—it rises from 788,000 to 816,000 this year—and the cutbacks in opportunities for newly-qualified teachers were the main reasons why unemployment was rising.

"For the current school leaver the opportunities for further and higher education were becoming relatively less. Large numbers will end up swelling the ranks of the unemployed. For the 16 or 18-year-old leaving school, the fact that this crisis is just temporary as the Government claims, does not help them. Their whole job and career opportunities have been blighted.

"The vicious reality of unemployment, which now stands at over 1.25 million, must concentrate our minds if we are adequately to represent our members' interests. I am glad to say that the cynical despatch of young people's futures, which the current Government's policies represent, is not being accepted lying down. Throughout the country, an angry response is growing as the facts hit home."

Mr Clarke believed that the Government's whole economic strategy was fundamentally mistaken. He said that the latest White Paper on public expenditure meant that current expenditure per student would decline by 3.1 per cent in 1978/79.

"The Labour Government has so far meekly accepted the economic priorities of big business. It has accepted the student demands for higher unemployment, for massive public expenditure cuts and for lower living standards in every section of the community, except the large corporations blessed by Denis Healey's generous tax handouts in the budget a year ago."

The NUS must fight to change society and change the economic policies of the Government. "It is not a question of what slogan we desire to put forward or what principle we can wear on our sleeve, the question at stake is whether we can alter the course of our society."

He condemned the Labour Government for making cynicism a political watchword and becoming the government of the Establishment.

"Like Solomon, they have sat on the fence and made appeasing judgments between competing claims. Resistance to change, and a grieved acceptance of the evils of the world, have become the hallmark of the Labour Party in government.

"It is our job to break down what cynicism there exists among the student body and to overcome the rejection of political life, of whatever form, that many of them feel."

● The ruling Broad Left coalition of Communist, Labour Party members and non-party socialists swept back into power in the elections for the executive of the National Union of Students this week, with a little help from their traditional enemies, the Conservatives.

Broad Left candidates secured the top four executive posts, each carrying a salary of £3,200, for the first time in four years, ousting Mr Hugh Lanning, the Independent Socialist, as treasurer.

Mr Charles Clarke, a 25-year-old Cambridge University graduate, was reelected president after a tough battle with Mr Lanning, of Birmingham Polytechnic. At one stage in the election by single transferable votes, only 26 votes separated the two candidates but then the 127 votes of Mr Mark Hapgood, the Conservative, were divided and 86 went to Mr Clarke giving him a majority of 81.

Mr Peter Ashby, a 23-year-old Warwick University graduate, became deputy president. He received 443 votes, easily beating his nearest rival, Mr Tim Whitfield, of the International Socialists, who polled 178. Mr Lanning was defeated by 14 votes for the treasurer's post by Mr Chris Morgan, a 23-year-old St Andrews University theology graduate. Ms Sue Slipman, a 26-year-old postgraduate teacher was reelected national secretary, when she beat Ms Valerie Coultas, of the International Marxist Group, by 415 votes to 298.

The Conservative candidate, Mr Steve Moon, received 167 votes which were again divided mainly in favour of Ms Slipman, a Communist Party member.

Mr Clarke said afterwards that the elections had shown the Conservatives were not such a strong force and that the impetus for the revolutionary left groups such as the IS and IMG was waning, and would continue to do so while their policies were unrealistic.

Mr Mark Hapgood, chairman of the Federation of Conservative Students, said that the results confirmed their best predictions and that Mr Clarke would not now be president without their support. His prediction that Conservatives would prefer to vote for Tribune members of the Labour Party and Communists rather than ultra-left candidates, was confirmed in the elections.

The final result was: 14 Broad Left, two International Socialists and one Conservative. All four vice-presidents are members of the Broad Left. They are David Aaronvitch (services), Penny Lewis (educational), Trevor Phillips (arens), and Jez Lloyd (welfare).

The executive officers and committee members are: Kay Copp Brown, Paul Perkins, Paul Blomfield, Harry Dean (Broad Left); Andy Durgan, Graham Threfall (International Socialist); and Steve Moon (Conservative).

Finding the right note for music history studies

by Robin Maconie

The chronological approach to music history could be exaggerated, delegates to the fourth University Music Teachers' Conference at Lancaster University were told last week. Too strong an emphasis on history created an undesirable pressure to cover everything, which led to concentration on a few key [illegible]

Music studies ought to be selective by design rather than by default, and take proper account of the wider social and musical context of selected figures.

In a discussion on the historical approach to music courses, some delegates felt that the history-based course was not wrong in principle, but it was impossible to cover the subject adequately in three years, and there was a tendency for chronological sequence to impose a factual tool ought to be stressed at undergraduate level. History was only the sum of individual works; and the job of analysis should be to illuminate the individuality of a given work and that its wider relevance might also be perceived.

The problem of relating analysis to composition was also discussed, and speakers asked whether the two could be related and whether it might be possible to return to the old notion of a music theory taught independently of particular examples.

The subject could not always be avoided. Analysis did at least offer students a greater flexibility of emphasis. Aesthetics, notation, instrument design and architectural acoustics were all relatively untried fields of special interest which were capable of an historical dimension.

Dr Arnold Whittle, of Kings College London, thought that although research and analysis were flourishing, more attention was necessary at undergraduate level to analytical method, and to relating research to practical course studies. Perhaps analysis was introduced at too complex a level; relating analysis to aesthetics might be a possible solution.

Not enough training in analysis was given at secondary school, according to Dr Brian Newbould. The subject was rewarding in itself as well as being relevant to general musicianship, and its value as a conceptual tool ought to be stressed at undergraduate level. History was only the sum of individual works; and the job of analysis should be to illuminate the individuality of a given work and that its wider relevance might also be perceived.

The problem of relating analysis to composition was also discussed, and speakers asked whether the two could be related and whether it might be possible to return to the old notion of a music theory taught independently of particular examples.

Job forecasts 'dubious'

Most forecasts of qualified manpower were "highly dubious", Mr Bryan Davies, Labour MP for Enfield North, said this week during the House of Commons Expenditure Committee investigating decision-making within the Department of Education and Science.

Mr C. A. Larsen, under-secretary in charge of the Department of Employment's manpower division, gave evidence that there had been no great success in forecasting jobs despite large-scale expenditure on research and surveys. But he added: "We can't just wring our hands and say we don't know at all."

He said most forecasting was done by the Unit for Manpower Studies, which although based in the Department of Employment was given its programme by a committee including representatives of the DES.

The expenditure committee's sub-committee on education also heard evidence from the Training Services Agency, set up in 1973.

NEXT WEEK

Science and religion — Don Cupitt

The conference season

Anthony Quinton on Sheldon Rothblatt

Sociology book reviews

East End escapes new London training cuts

by David Hencke

Teacher training numbers in the Inner London Education Authority's seven remaining college and polytechnic centres are to be revised downwards for the third time in three years.

Plans approved by the authority's further and higher education sub-committee last week will cut the average in-service training allocation to 8 per cent, less than half the 20 per cent recommended by the Department of Education and Science in its letter to colleges last November.

But the authority will allow some colleges—among them Avery Hill, with its Mile End annexe—to increase their initial teacher training provision above the numbers suggested by the DES.

The overall effect of the scheme will be to reduce the total number of teacher training places by a further 215, from 3,405 to 3,190 including the authority's Shoreditch College in Surrey.

Proposed new allocations for colleges and polytechnic departments are: Avery Hill 625, a reduction of 45 places; Thames Polytechnic and Dartford College 375, a reduction of 25; South Bank Polytechnic and Battersea College 420, a reduction of 20; Philippa Fawcett and Furzedown College 585, a reduction of 15; Polytechnic of North London 260, a reduction of 30; Central London Polytechnic and Sidney Webb College 270, a reduction of 30; Shoreditch 655, a reduction of 50.

In-service provision will be: Avery Hill 45 places; Thames 25; South Bank 20; Philippa Fawcett 15; Polytechnic of North London 30; Central London Polytechnic 30; Shoreditch 50.

Four centres will receive increased initial teacher training allocations. These are: Avery Hill 580, an increase of 44; Thames 350, an increase of 30; Philippa Fawcett 570, an increase of 90; Shoreditch 605, an increase of 42.

Increased initial teacher training places should be helpful to Avery Hill since the authority want it to retain its Mile End annexe for teacher training courses. The college proposed to end initial training courses there while keeping its in-service and youth and community course running at the annexe.

Dr Eric Brisult, education officer of ILEA, says in his report. "The Mile End annexe fulfils a very special role: initial teacher training was introduced there in 1968 with a view to stabilizing the teacher supply in the East End by recruiting mature students already living in the area who would be more likely to stay in those schools. In this it has undoubtedly succeeded, and there is therefore a strong case for seeking to retain an element of initial teaching work at the annexe, if possible with some mature entrants."

The new cuts are estimated to save the authority an additional £350,000 per annum by 1981.

BEd (Hons) will follow Queen's reorganization

by Paul McGill

The complicated structure of teacher education in Queen's University, Belfast, and its three recognized colleges is to be rationalized. The university's Senate has decided on an overhaul involving the creation of two new departments and the institution of an honours BEd degree for students in Stranmillis, St Mary's, and St Joseph's colleges.

At present, responsibility for the teaching of education is shared by the Queen's Faculty of Education, its Department of Education (which is in the arts rather than the education faculty) and the Institute of Education which consists of the three colleges of education and the Department of Education.

Some years ago the Lelievre report (Northern Ireland's equivalent of James) drew attention to the weakness of this structure and the duplication of activities which resulted. It also criticized "the confusing disparities in the status of courses" whereby, for example, students doing a course in the colleges got a Certificate in Education while Queen's students doing a similar course got a DipEd.

In an effort to meet Lelievre's criticisms, the Faculty of Education will be expanded to cover all teacher education. The Department of Education will be transferred there and the Institute of Education will be abolished with its functions and staff being taken over by a new Department of Further Professional Studies in Education. Another new Department of Educational Studies will supervise the BEd degree and the Certificate in Education. The faculty will also incorporate physical education and extra-mural studies.

One innovation will be the introduction of an honours BEd. The first two years of study will be common to all students, followed by one additional year for the general degree and two years for honours.

The colleges have long demanded the honours BEd, but they will have to pay for it through greater control over their affairs by Queen's.

Dr Muhammad Al-Sharif, the Libyan Minister for Education, opens an exhibition of Islamic art and architecture in Libya at the Architectural Association, London. The exhibition, which continues until May 7, is part of the £2m World of Islam Festival.

University staff 'too busy' for overseas assignments

by Frances Hill

The willingness of British universities to contribute to the development of overseas universities has been "noticeably impaired", according to Mr J. B. Butterworth, chairman of the Inter-University Council for Higher Education Overseas.

British university staff are having to accept substantially increased work loads and can less easily be spared to take up assignments abroad, Mr Butterworth says in his annual report. Disturbed conditions at home have increased the inward-looking tendencies and internal preoccupations of British staff.

Mr Butterworth warns that "it would be a sad day . . . for the respect in which Britain is still held in scholarly circles overseas if British universities ceased to take a constructive interest in overseas, and particularly in third world, matters".

In an effort to identify the precise nature of British universities' difficulties and to seek means of overcoming them, the Inter-University Council set up a working party on British universities and overseas development in 1975. The group, chaired by Sir Michael Swann, chairman of the BBC, expects to report this year.

A major new development in 1974/75 was the demand for outside assistance in building up new and enlarged universities for the oil-rich countries of the Middle East, the report says. This has led to the rapid development of interest, fostered by the British Council and the Board of Trade, in activities designed to stimulate the export of paid educational services.

A great deal of this effort is concerned with the acceptance of additional overseas students from Middle East countries in British institutions of further and higher education.

Inter-University Council for Higher Education Overseas. Chairman's Report to the Council for the Academic Year 1974-75.

Planning for privation

Despite inflation, Loughborough University was able to make a small surplus on its income and expenditure account in 1974/75, Dr Clifford Butler, the vice-chancellor, has disclosed.

In his first annual report to the court of the university, Dr Butler, who until last October was director of the Nuffield Foundation, complained of the difficulty in long-term planning which the universities were experiencing.

"I very much agree with several vice-chancellors who have said they would rather have a tough plan but with some pretty firm promises of continuity over the next few years, instead of the present completely uncertain and frustrating situation. Privation is easier to bear, and to plan for, than uncertainty."

Student numbers had continued to rise. There were about 2,900 undergraduates and 750 postgraduates in 1974/75 and the number of overseas students, both undergraduate and postgraduate, had increased slightly as a percentage of the total.

The university's total income from research grants, contracts and consultancy in 1974/75 was £1,013,000, compared with £940,000 in the previous year.

Alarm over fall in French students

The study of French and modern languages is entering a phase so critical that it is in its present form is seriously threatened.

This warning was given at the University of Birmingham last week by Professor C. A. Burns, president of the Society for French Studies. He was speaking at the society's annual conference.

Students and teachers of French are aware of some very obvious symptoms of a malaise which should be identified and counteracted as rapidly as possible, Professor Burns said. The number of candidates taking A levels in French is falling, as is the number of applications to French departments in a significant number of universities; the so-called "minority" languages in schools and some universities seem to be in danger of "slow death".

The teaching of French is today perceived as appears to be increasingly uncertain in its aims, content and achievements, Professor Burns claimed. Comprehensive schools, which were intended to offer greater opportunities to less able pupils, are having the opposite effect as far as modern languages are concerned.

Professor Burns said the study of languages contained important elements of experience crucial to the formation of mature, balanced judgments. If French in schools and universities and foreign languages would die, the loss to the intellectual resources of the country will be incalculable.

Designing a new image

The engineering designer must be given a more attractive professional image and a more appropriate education according to the report of the Design Council's Moulton Committee, published this week.

"Compared with our latest competitors, we have relatively few graduates working in design and production, and a relatively small number in research and development," the report claims.

The report advocates the provision of workshop facilities for staff in secondary schools to stimulate interest in design and technology. At first degree level, the report recommends the study of design as a thread running through all normal engineering courses.

At postgraduate level, the committee point to the need for a greater variety of provision: some courses, some general and multidisciplinary, others specialized and closely related to specific industries. *Engineering Design Education*, published by the Design Council, 9b

Don's diary

Friday

Noticed on the station the report in *The THES* on the AUT/TUC opinion poll. I wonder whether some AUT members will resign if we do join the TUC. I remember the public meetings last summer about the pay demand, and impassioned statements in both Bath and Bristol branches that "gentlemen do not strike". What also of the future of ASTMS in universities? Whatever the relative bargaining power, ASTMS has for some people the greater advantage of a broader relationship with the labour movement as a whole.

Visited by an engineering student who wants advice on possible personality variables affecting reaction to noise, part of a practical project. Make some suggestions and wonder if this is true multidisciplinarity, or the glib application of psychotechnology. There are some interesting consequences of being a minority discipline in the university. But multidisciplinarity can work in a number of ways; a few weeks ago a sociology student put his head round the door and asked me what Dostoevsky's first name was. I consulted an economist, who did know.

Spent some time discussing possible future directions for psychology in the university with a fellow psychologist, who tried to help a graduate student direct her thoughts towards a manageable research project. I sometimes wish the all-embracing enthusiasm for finding out *everything* could survive beyond the graduate phase, and not be crushed by realities such as applying for research grants, and having to earn a living.

Lecture on motivation to the first year interrupted at a dramatic point by the arrival of some equipment which has to be signed for. An awesome moment; it is the first consignment of some equipment I have played some part in designing, and I hope, with trepidation, that it will do all the experiments it is supposed to.

Lab class in the afternoon is truncated by an examiners' meeting. The semester system has its advantages, but means heavy examination programmes twice a year. The external examiner jocularly wonders whether the national reduction in the number of thirds is part of the decline of western civilization. The meeting progresses with the usual discussion about the usual problem of lack of spread of marks, which seems endemic to all social sciences.

And so on to this week's "Explorations in Psychology" seminar, on body image and sex-role stereotyping, which is well-attended and lively. Discussion of sex-role stereotyping and psychology continues over dinner.

Saturday/Sunday

First opportunity for belated recuperation from 'flu of a week ago, so resist overdue marking. Due to deadlines, I spent the previous weekend in bed writing a book review as part of a chapter. Go to the Arnolfini for the performance of a Dutch dance-mime group, who are very funny. Afterwards with friends, more discussion about the decline of western democracy, and whether ideology or the morbid fear of ideology is the more dangerous threat.

Put off proposed visit to Cardiff to discuss my chapter, and decide not to go to ASTMS day school either. Help my daughter make a blouse instead. Dinner with friends and we talk neither about sex roles nor western civilization.

Monday

Research and writing day. Closeted in my study in cosy disarray, a long way from the campus (though sometimes I wish there was not a garage next door). Reluctantly return to redrafting chapter on sex role socialization, but abandon it in favour of marking and reading journal articles. I have a perpetual haunted feeling that the next journal article I read will report the seminal study on moral development, or the definitive review of sex roles. One should of course be objectively delighted at the advance of knowledge, but one would prefer it not to accelerate so fast as to make quite redundant the pile of computer printout that falls over whenever the chair is moved.

Today's readings are no such threat, being mostly examples of the very precise application of empirical rigour to highly specific details of behaviour. Feel alienated and depressed, especially when I consider that other people probably find my own contribution to knowledge equally unstimulating.

Tuesday

Disillusionment with chapter, already overdue, although I am beginning to see a viable structure. Should by now have got back to my moral development research; my impatience (or possibly panic) stimulated by reading a seminar paper on it a couple of weeks ago.

Yesterday's journal-mining confirmed an impression I had formed some time ago, that there is some intellectual link between moral development and sex roles; surprisingly large numbers of names I hitherto came across in the moral development literature are now turning up studying sex roles. Whether this is intellectual fashion, dominant social issues, or concern with social change, I don't know.

Late afternoon, to the university to discuss a new course unit of true multidisciplinarity, in that it would draw on five disciplines. It is an interesting question as to whether we all do our own thing under the same umbrella, or whether we can, trained as we were all more or less according to orthodox definitions of "discipline", transcend our training. (Some people have argued that the only possible transcendence of discipline boundaries is through Marxist analyses.) One of my colleagues combines expertise in Rousseau and vampirism, but unfortunately only the first is required for this course.

Home in time to watch *Rock Follies*.

Wednesday

My birthday. One of those indeterminate early thirties birthdays where you have to count back to remember which it is. One or two people remind me that they had chosen, or had written very successful books, by this age. What, I ask myself, do they do for an encore?

Answer: sit permanently on committees. Scorning the glittering prizes of academic life I present my apologies for missing a committee I am supposed to attend in the afternoon and go to a symposium on equal pay. It is a small SSRC supported gathering from a wide range of academic and professional interests. It is encouraging to find out how much research is already going on into the implementation and effects of the Act. In the course of the day, the limitations of the Act also become apparent. The conference continues until 10.30.

Thursday

Manage to postpone most of my classes in order to attend the second day of the conference, which will mean a heavy day next Thursday. Final-year students take precedence, however, and the meeting, with a seminar whose problem hangs on the relationship between attitudes and behaviour.

Today the conference has moved to aspects of equal pay in which equality of opportunity becomes a germane issue. It becomes apparent, to me at least, that the two pieces of legislation are integrally related. As studies of industries which have had equal pay for some time indicate, this is no guarantee whatever of equal opportunity.

Whether the sex discrimination legislation will overcome the hidden, as well as the overt, problems of inequality remains to be seen. Universities of course are a case in point. Frequently floating in the air in the discussion is the question of the effect of legislation on changes of attitude—again, the relationship between attitude and behaviour.

The conference closes with some people at least feeling that here, if anywhere, multidisciplinary approaches are not only meaningful but essential.

Friday

Driving to and through Bath is always pleasant, though despite its beauty I have no desire to live there. Ultimately, Bath is a small town, with all that implies. It is now also frightfully fashionable; it is disconcerting to find that the little bistros and restaurants to which we all retreat for post-seminar nosh have become nationally trendy

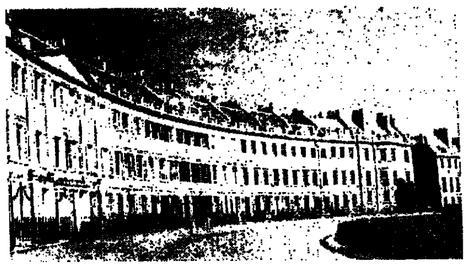
The technology students fails to return, so I have time to catch up the last two days' administration, much of which seems to be granting absolution in advance for work that "cannot possibly" be completed by the end of term deadline.

Discuss with two colleagues the way in which the intellectual delights of multi or transdisciplinarity can turn into political ineptitude warfare in the face of limited resources. Presumably in a simple old-fashioned unidisciplinary world the goodies are dealt out (or not) on a simple distribution basis. When new developments arise in existing schemes, but have to be justified in terms of their relation to those schemes, either casuistry or fanaticism follows. We seem to spend a lot of time picking shrapnel out of our hair.

Rather manic lunch with a friend I have not seen for 15 years, which reawakens some of Wednesday's angst. Solid afternoon teaching of seminars, and a laboratory class on the rather topically relevant subject of "fear of success", a problem of motivation regarded in the United States as contributory to female "underachievement". British women, however, do not seem to show it.

Helen Weinreich

The author is lecturer in social psychology in the Sociology Group, School of Humanities and Social Sciences, University of Bath.



"Driving to and through Bath is always pleasant . . ."

A culture to match one's geography

KENNETH MINOGUE

All education, it may plausibly be suggested, is a compromise between the valuable and the local; alongside the abstractions of mathematics and the epics of Homer will be found our *Island Story* and the latest civics course. In earlier centuries, teachers set their eyes firmly on what they thought was valuable, but our passage through modernity is marked by the steady erosion of the valuable in favour of the local.

Those thoughts are provoked by a glance at the Australian educational system which I last knew as a schoolboy in the 1940s. The changes are considerable. Some of them merely reflect the drift of world-wide fashions, but others are rooted in local conditions.

Australian education in the 1940s was almost wholly British not only in its structure but even in its point of view. History went from the cave men to the ancient civilizations (briefly) and moved to the Norman Conquest to follow in detail the fortunes of Plantagenet, Lancaster, York and the rest. Robin Hood was as lively to me as to any child in Nottingham; and certainly more so than Ned Kelly.

The virtue of perseverance was more likely to be illustrated in the classroom by Robert the Bruce encountering the spider, than by the heroic persistence of the explorers who opened up Australia. French and Latin were the languages to be learnt and literature was Shakespeare and Dickens.

Culture, in other words, was imported from abroad. There are some nationalist moods in all countries which find this situation intolerable. In these moods, ideas like alienation and authenticity are often persuasively invoked. But it is certainly a mistake to see this situation as one of imperialistic cultural dominance: it is something that Europeans have also imposed on themselves.

All educated Europeans until recently learned a patriotism inappropriate to their own situation. They learned to cheer with the Greeks at Marathon and with the Romans against numberless foes. Is not Livy, after all, a patriotic primer for a defunct patria? But it would be a very narrow nationalist who thought that this education rendered Europeans alienated and inauthentic. On the contrary, it gave them a resonance and a binocular vision on which most of their great achievements rest. It is those features which are often currently sacrificed to the jealous god of the nation, often these days worshipped under the cult of Relevance.

One result of this type of education in Australia was certainly a triumph for the British tourist industry. It created a kind of spiritual nostalgia for wet green fields once populated by charging knights, for teeming slums reminiscent of Dickens, for well proportioned Georgian terraces, for English country pubs and for all the other relics of achievement that induce the rest of the world to spend its dollars and yen in visiting the British Isles.

But the old style of education is in the process of rapid modification. The classics are now virtually abandoned. For why, runs the irresistible query of the utilitarian, should Australians bother to fill their heads with the grammar of a tongue belonging to a long dead civilization on the other side of the world?

Nothing surprising about this, no doubt. John Locke, like many other Englishmen in the seventeenth century, already considered that the sons of mechanics needed a more relevant education. Locke didn't go as far as the psychologist who recently suggested to the Australian Schools Commission that schools "should help develop psychosocial skills in students" by instituting "personal development programmes" to be provided by trained psychologists. But he took the first step, though one may well doubt whether in this case it is really *le premier pas qui compte*.

It is in the area of modern language teaching that the conflict between the local and the valuable currently seems to be at its hottest in Australia. Some years ago, the syllabus structure in New South Wales was revised so as to make modern languages no longer one of the compulsory areas, but an option among others. And in addition, French and German found themselves competing with and being to some extent replaced by Indonesian and other Asian languages.

The reason for the spreading currency of Asian languages is not that the Australian public has developed a profound curiosity about the spiritual treasures of the East. It is, rather, the result of a nationalist doctrine which, in the perennial nationalist search for an elusive something going by the name of "national identity", has found that the most significant thing about Australia is its geographical location. This doctrine draws the conclusion that Australians can choose either to be a remote and provincial outpost of Europe, or embrace their geography to become deeply involved with their neighbours.

There is nothing necessarily foolish about this, nor about many of the consequences that might be drawn from it. But in education, it is the determinant of three beliefs which together bid fair to destroy an entire dimension of Australian cultural life.

These three beliefs are: that Australians ought to learn the culture of their neighbours in order to get onto friendly relations with them; that the point of learning a language is to be able to speak to the natives; and that languages should be learnt not as grammatical structures but in the flowing practical way that infants learn.

The first belief is certainly true for diplomats and businessmen who will have direct dealings with Asian countries. But it is far from evident that the average Sydneysider with a bit of Indonesian is going to do anything more to build international bridges in the Pacific region than be able to order *nasi goreng* from the menu if he takes a holiday in Bali.

The idea that learning a foreign language serves the cause of peace and friendship is, than, one of those pieces of self-recommending rhetoric in which many subjects engage, like the attractive folly of recommending Latin solely on the grounds that it helps us to speak English better. It does, but it does much else besides.

The third belief takes the view that only old fashioned fogeys would bother with learning a grammar when there is a language laboratory available. For many purposes (for example, if one seeks to be a simultaneous translator) there will be much in its favour, provided it is successful. But the *educational* point of learning another language is, of course, another thing altogether. It is that the language itself is both a grand intellectual construction, and a highway leading to a literature of universal significance. And if this much is granted, it leads immediately to the difficult question of whether all cultures are equally valuable. To an anthropologist, of course, they must be, since every culture is fascinating as a complicated human response to its surroundings.

But whilst anthropologists are educational democrats, students of literature inevitably are not. Their business is to judge the resonance and grandeur of different cultural creations (Shakespeare and Raymond Chandler, Racine and Simenon), and also (though with great caution) of entire cultures.

The educational currency of Latin and Greek, and of the major literatures of modern Europe represents, therefore, not a judgment that these cultures are neighbours and therefore it is our duty to get to know them, but rather that within these cultures human experience has been explored with a range and depth not found elsewhere. It is a judgment in terms of value, not in terms of local significance.

The few stammering thoughts of modern nationalists on such a question are barely to be compared with the weight of this judgment over the generations. There may well be a case for directing educational attention to the cultural resources of China and Japan, but it is not at all the case commonly advanced in Australia.

The effect of the changes in Australia over the past decade has been an overall decline of interest in language, accompanied by the lamentations of teachers that student understanding of grammar is disappearing. The paradoxical result of this change appears to be that, far from being reduced to the status of monoglots, Australian culture will soon be left with no glots whatever. *Le silence de ces espaces infinies m'effraie.*

Should egalitarianism go to university?

In its first full-scale debate on universities for over a decade the House of Lords examines the current problems facing higher education. David Walker reports

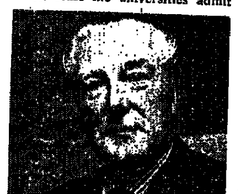
Too many academics have been indifferent to what happens in schools with grave consequences for the universities' future, Lord James, former vice-chancellor of York University, told the House of Lords last week.

He said that egalitarian changes imposed on the schools were affecting the standard of those entering higher education. Universities were unashamedly concerned with the minority.

"At their best they are places where teachers and taught discuss and evaluate very difficult and sometimes original ideas. The majority of people cannot deal with such ideas, much though we may wish it were otherwise," Lord James added.

The theme, during the Lords' first full-dress debate on universities for over a decade, was taken up by Lord Eccles, chairman of the British Library and former Conservative Minister for Education in the 1950s, who warned that educational standards in sixth forms were declining. He blamed "soft-hearted" educationists for making O and A levels easier.

"At least the universities admit to knowing what is happening. But what a disaster if the remedy is that suggested by the University Grants Committee in its annual survey. They warn us that degree courses may have to be lengthened, presumably by a whole year from three to four, to make good the lower standards of teaching in the schools.



Lord Eccles

"Just think of the expense to the taxpayer, in money, and to the student in time. It would mean a drastic cut in the number of courses—and all because we have allowed the education of potential undergraduates to deteriorate," Lord Eccles said.

The problem of admitting underqualified students to universities was only one of the difficulties diagnosed during the Lords' debate. A gallery of ennobled academics, university vice-chancellors and chancellors rose to discuss what Lord Fulton, former vice-chancellor of Sussex University, called "the manifest uneasiness observable in the universities".

Most speakers agreed with Lord Fulton's diagnosis: "The winds of popularity which so agreeably helped to propel the universities through the 1960s have proved more fickle recently, and a change of climate towards frigidity is usually less readily adjusted to."

The universities seemed to have lost the public's confidence, their grants had been cut, and the quality of their work threatened. Lord Todd, Master of Christ's College, Cambridge, said the public did not realize that the peculiar nature of the universities compelled them to plan for the long-term. In times of financial stress they could not make arbitrary cuts in their current spending without causing serious damage.

Another scientist, Lord Tedder, professor of chemistry at St Andrews University, argued that students, administrators and university staff were all demoralised. Two major problems were that the schools disparaged academic ability and students were not given adequate grants. He added: "The area of greatest danger at the present time is the loss of confidence by the university teaching staff. There is the infamous treatment of university teachers in respect of salary.

"The injustice so often meted out as a result of Government wages and income policy in the past dwindles to nothing when compared with that endured by university teachers.

"I should like to give a single example. In October, 1970, the average professorial salary was £5 00.1, which was exactly the same as time of an assistant secretary in the administrative Civil Service at the top of the scale. Today, the average professorial salary is £8,500, while the assistant secretary's salary has risen to £11,000."

Not all the Lords agreed with this pessimism. On behalf of the Government, Lord Donaldson of Kingsbridge, Under-Secretary for Northern Ireland, said the figures showed that the proportion of national expenditure devoted to education in general and to the universities in particular was not stingy.

He admitted that the universities had to bear severe economies and their development was inevitably slowed up. Nevertheless the latest settlement was fair. Education was still second in the public expenditure league table, and even by 1979-1980, the highest year according to the expenditure White Paper, resources for education in real terms would be up by nearly 20 per cent on 1970-1.

Lord Robbins, Chancellor of Stirling and chairman of the Committee on Higher Education 1961-4, denied that there was any need to "cry wolf". "I should like to say that any talk of catastrophe and disaster, any talk as if what is likely to happen must sweep away all standards in learning and research is an unwise exaggeration. I do not think we in the universities do ourselves any good by using such language frequently.

"I am clear that a worsening of the staff-student ratio will make the position more difficult in the long period as well as in the short. But there are many parts of the western world where staff-student ratios are far worse than they are likely to become here, and teaching and the advancement of learning still goes on.

Lord James suggested that three major reforms were needed.

First, the universities had to avoid diffusion of effort and admit that not every university should teach everything. "This is accepted as regards some subjects like medicine; nevertheless there are too many small and uneconomic departments, and both in the interests of economy and of staff morale, and in the interests of not letting our universities grow too large, greater self-discipline, I believe, must be shown by the universities in allowing this proliferation."

Second, the universities had to examine their attitude towards research. The idea that every university teacher was expected to spend about one third of his time on research had been applied too mechanically and unrealistically.

"We have to face the fact in truth that not every department in every university can or should be expected to produce valuable, still less fundamental new knowledge; and the triviality of much that has been published has tended to devalue the whole concept of research as an activity valuable in itself and on which the universities are uniquely qualified to undertake."

Thirdly, the idea that all academics should take part in university administration could be reviewed. "One wonders whether an expert in medieval French is best employed spending hours on the catering committee, or a committee set up to design a new physics building; or 10 others. Such an interpretation of the sacred phrase 'a self-governing academic community' is a waste of rare talents, and it may well seriously prevent the universities from thinking about the future."

Lord James

Lord Annan said: "Nobody suppposes that universities can have all they want or need; they will have to put up with less like everyone else. But I believe it to be important that within the limited sum available, account should be taken of the universities' function as centres of knowledge and research, as well as teaching institutions, and that this function should be recognized as indispensable to the sort of economy and society in which we live and not something to be treated as a luxury or marginal purpose."

Lord Bullock

Lord Annan, too, for all his urging of a new look at priorities, argued that higher education in the universities was "relevant". It involved making human beings more responsive, more enlightened, with minds better equipped to analyze problems and come to dispassionate conclusions.

Lord Morris of Grasmere, former Vice-chancellor of Leeds University, concentrated on the students. He urged that the right of students to consultation and participation in university affairs be recognized. He then talked about students' destinations.

"Many people have gone into services instead of into manufacturing. Speaking with long experience of teaching in universities, I would say that the effect of universities is to make people keener on services than on manufacturing.

"Of course there is enormous influence through the fair sex and with the greater influence of women, the services are nearer to dealing with people and further from dealing with objects, and all their influence is that way. That situation will go further yet.

"In any case it is doubtful whether you are going to increase anybody's gap by further over-manning; but it is doubtful if you could further over-manning and cut-back whether you will know what to do with the vast majority of people.

"The pattern of the future is that people have got to go into the service industries; to follow professional services they have to work for the welfare state—everything of that kind; and, by and large, a higher proportion will need to have a degree more of higher education then will the corresponding proportion in the production and manufacturing industries.

"So if you want the universities to think about the future (which they are doing, and are playing a bigger part than anybody knows in helping to turn people's minds towards the real problems, and if you are going to get the future right, then it surely must be right in the slightly longer term that they have to go into services and out of production."

Answering the debate for the Government, Lord Crowther-Hunt, formerly Minister of State overseeing higher education, offered little hope of a bright financial future for the universities, but reiterated the Government's intention to return to longer term financial planning if possible.

Admitting that morale in the universities was at a low level, he rejected outright any suggestion that the Government was anti-universities.

Lord Annan

On salaries, Lord Crowther-Hunt reiterated the commitment given by Mr Mulley, Secretary for Education, that the Government would return to the question of discrepancies in academics' salaries when there was a "different pay situation" facing the country.

"When that will be I cannot say. It will depend on the form and scope for pay policy in the next round. I can certainly give no assurance of any kind that university teachers will be given exceptional treatment in October, 1976, when their salaries will next be reviewed."

Taking up other points from the debate, Lord Crowther-Hunt defended the independence of the UGC. He said that although officers of the Department of Education and Science attended its meetings, they could be excluded from considering any item of business as the UGC decided. For example, they did not see any papers dealing with the planning of proposals for the 1972-77 quinquennium.

The proportion of young workers in Britain given day-release education was much smaller than in Sweden or Germany, he said. "I am not suggesting that this is why West German and Swedish industry is much more efficient than ours, but I cannot help feeling that the better the training a person has in industry, the higher his rate of productivity is likely to be.

"This is why the Government, recognizing the importance of this question, have given priority in future plans to the 16 to 19-year-olds."

Lord Crowther-Hunt

Lord Robbins's warning about crying doom. Tightening the staff-student ratio was not the end of the world. It was a pity that universities had not publicly come to grips with some of the issues and priorities which he himself had put to them during his time at the DES.

He concluded: "While maintaining the autonomy of the universities we have to see how our system of further and higher education as a whole, and not just the universities, can best meet the country's needs for highly trained manpower to help solve our industrial, economic and social problems; and also to ensure that all our people have the opportunity to develop their talents to the full and so to provide a richer life not only for themselves but for the country as a whole."

Leader, page 14

Didacta searches for an identity

Didacta, the major European educational materials fair, took place in Basle at the end of March amid controversy about its future and the future use of educational technology.

It now seems likely that the exhibition will be held every two years instead of annually and staged alternately inside and outside Germany. Discussions are already under way about the possibility of its being held at the new Birmingham exhibition centre in 1982.

Didacta is an exhibition which has been struggling for some time to find an identity. Started up as *Deutsche Lehrmittelverband* (the German equivalent of the British Educational Equipment Association, it has been organized since by Eurodidac, the European Association of Manufacturers and Distributors of Educational Materials.

Members of Eurodidac understandably wanted to make the exhibition as international as possible. To this end they have for some years been pressing for it to be held outside Germany.

A compromise agreement was reached with the DLV in 1976 when it was agreed that Didacta should become an annual event (previously it was biennial) and should be held alternately inside and outside Germany.

So in 1974 on its first excursion out of a German-speaking country Didacta was held in Brussels; the year it was held in Nuremberg saw this year in Basle. It is now generally agreed that the experiment has been unsuccessful.

In the present economic situation manufacturers and publishers do not want to exhibit every year and have on the whole chosen the exhibitions held outside Germany, which have consequently become the only International Didactas. Discussions between Eurodidac and the DLV on its fate will take place in late 1978.

The most likely candidate for the exhibition is Brussels. It is thought that Didacta will return to Germany, but in 1982 it will not come out again.

Worries about Didacta's future must to some extent have been allayed by this year's event. Two years before in Brussels many of the halls were depressingly empty—due mainly to the elementary mistake of holding it during school examinations.

This year the Basle exhibition contro was teeming with people. Swiss schools sent many representatives each and there were also many visitors from other European countries and, to the delight of exhibitors, from the Middle East, Africa and the United States.

This high attendance and the jubilant mood of many of the exhibitors contrasted strikingly with the disillusion expressed in some opening speeches of the exhibition.

A recurring theme was that the sophisticated equipment in which many countries had invested was not achieving the expected results. In spite of it "teachers were still finding eight-year-olds who couldn't read or write", as one speaker put it.

This scepticism, together with the effects of the economic climate, was, however, reflected in the exhibition in a surprising and not displeasing way. As a member of the Eurodidac Presidium said, it was the less proven equipment which this year was absent—the list of computer manufacturers, for example, was much shorter than in previous years.

Moreover, it was notable that there were very few really radical innovations in the equipment. What was new were refinements, many of which were designed to save money.

Another probably cost-effective trend at Didacta was the obvious increase in audio-visual materials. Libraries of slides, transparencies, filmstrips and wallcharts are at last catching up with the proliferation of equipment.

This is partly due to increased international cooperation. Companies are realizing that visual information is easily exchangable and are looking for already produced materials to slot into multi-media packages or to add to slide packs and filmstrips. The result appears to be an improvement in quality as well as quantity.

Carolyn O'Grady

Sue Reid visits University College, Buckingham in its first academic year

Professor Beloff's dream shapes up to reality

When Professor Max Beloff, principal of the University College, Buckingham delivered the Edmund Rich memorial lecture to the Royal Society of Arts in 1974 it seemed to the outside world that this determined academic was about to achieve something of a coup.

His protracted negotiations with the Council for National Academic Awards were nearing completion and it looked likely that the council would give its approval to Professor Beloff's unique scheme for a two-year degree course at Buckingham, Britain's first privately financed "independent university".

In fact, on certain second Professor Beloff of CNAA validation that he was able to reflect during his lecture: "It would have been legal to offer our own degrees and rely on their being accepted as the reputation of the institution and its graduates as least provide the opportunity of an "alternative" higher education, albeit for those who could afford the £1,500 a year to pay for it.

Now those hopes have in part been realized. The steadfast determination of Professor Beloff, who gave up All Souls and Oxford's Gladstone chair of government and public administration to take part in the Buckingham experiment, led to the opening of the college two months ago with a reasonable student intake in numerical, if not academic, terms.

While outwardly supporting the Buckingham "licence", introduced through force of circumstances but already accepted by the Bar Council and the Law Society as equivalent to a normal degree, Professor Beloff has hopes of getting a royal charter from the Privy Council within the next seven years when student numbers could conceivably have reached 500.

Five years ago there were hopes of establishing six faculties but to have on the school of law, with 45 students, and two other schools, one of economics and the other of law, economics and politics, which together cater for the remaining 25 Buckingham entrants.

Venus Varnavides thinks that the law school would prove the most popular with other, more conventional law faculties in the higher education sector turning all but the "cream" Buckingham with the same enthusiasm as their principal. They range from a 30-year-old lecturer in modern languages, who doubles as assistant dean of admissions and has moved to the college from Birmingham Polytechnic, to the head of the law school recruited from Exeter University where he was reader in English law for 28 years. All seem pleased to take a gamble on the experiment and their future careers.

'Hop in, old man—we students must stick together.'

For the students too it is a gamble. But they are the buyers of an expensive education and have already voiced dissatisfaction at the minor teething troubles the college has faced in the last two months.

Languages, mathematics and natural sciences are compulsory subjects for all students, a decision made by Professor Beloff, who is determined not to see Buckingham develop into simply a law school.

But while languages and mathematics do not ultimately count towards Buckingham's final licence the natural science course must be passed to gain the licence, much to the disgust of many students.

A deputation has already argued this out with Professor Beloff but to little avail. Many are worried that their chances of gaining the licence may be hampered by having to spend a proportion of their two years studying science, a strange bedfellow for law, politics and economics.

But student confrontation is as yet unknown at the University College, although a union, outspokenly critical of the college has been formed but with no link to the National Union of Students. The students, fresh in many cases from Britain's public schools and perhaps naive when it comes to union negotiating tactics, tend to push Professor Beloff only into the role of headmaster.

More than one-third of the 70 students have been awarded scholarships by the college, some admittedly very small, to ease the financial burden. A loan system has also been devised and taken up by 10 mature students. As yet Professor Beloff is reluctant to extend the scheme to school leavers and the younger students who may have years of study ahead of them when they leave Buckingham.

But in spite of this financial help the college has still largely attracted the wealthy who can afford the £5,000 needed to complete the course. One, an Arabian sheik, travels to the college by Rolls-Royce each day from Oxford where he is a permanent resident of the Randolf Hotel.

Local education authorities have so far been totally unbending and as yet no Buckingham student has received a maintenance grant. Hereford-over, Redbridge and Devonshire councils have both said they will pay a grant and a proportion of students fees in the future. The college now hopes for some response from other authorities and is quick to point out the financial advantage of a two-year course.

If there is a response from the local authorities then Professor Beloff's dream of 500 students within seven years could come true. Applications are already high for next year when a fourth school in history, politics and English literature is planned but finance, from both the students' and the college's point of view, remains the main stumbling block.

If scholarships could be provided on a wider basis by the college coupled with local authority sponsorship then few students would have to turned away because they fail to jump the financial hurdle. It would lead to potential students considering Buckingham alongside conventional universities and polytechnics and allow the college to select purely on academic merit.

But Professor Beloff's original stalwarts in the industrial world are still standing by in the wings and when a campaign to attract more private finance gets under way in the next few weeks they are likely to step in. Shell has already come forward, unasked, with another £7,500 on top of its original substantial donation, a gesture that suggests Buckingham's ultimate saviour will be big business.

Martyn Berry reviews the annual report of the Central Register and Clearing House and the Graduate Teacher Training Registry

Will anyone apply for teacher training in future?

In spite of the Houghton award, the prospect for school teaching still looks bleak. The pressures is on to cut recruitment into the profession; sections of the media have emphasized the possibility of unemployment for newly qualified teachers; schemes for enforced retirement at 50 are being mooted.

Add to these the well-publicized problems of certain schools and of ex-Professor Harry Roe, and one might wonder whether anyone at all will apply for teacher training in future.

It is perhaps symptomatic of the situation that *The Times Educational Supplement*, which this time last year regularly dropped through my letter box in two large sections, one of which was entirely devoted to job advertisements, is this year still undivided and comparatively thin.

The latest annual report of the Central Register and Clearing House and the Graduate Teacher Training Registry records not only the changing status of the colleges of education, but also the financial crisis which hit CRACH itself because of the fall in registration income combined with inflation.

A touch of justifiable bitterness appears in the review of the year by the secretary, Beryl Sowerbutts: "Cuts in teacher training had to come, but in many cases problems have been aggravated by lengthy discussions and political manoeuvrings that must have been anathema to colleagues in colleges of education which, over many years when expansion was the call, have worked so hard to recruit and train the nation's teachers.

As Table 1 shows the 1975 entry to three or four-year courses in colleges or polytechnics fell by 8.3 per cent compared with 1974, and was 24 per cent below the peak of 1971. The percentage of male entrants continued to fall.

The percentage of entrants with a pass in O-level mathematics showed no improvement; one of Lord Alexander's more reasonable suggestions in the past was that intending primary teachers, who would necessarily become involved with instilling the basis of numeracy, should themselves have achieved the modest level of competence indicated by an O-level pass.

There is evidence from the figures that many people, especially girls, are working on A-level courses without bothering much with O-level mathematics. This suggests that some schools are offering to their pupils either bad advice or bad mathematics teaching.

An alternative explanation for the figures is that many enter teaching because they have failed to obtain the mathematics qualification needed for entry to many other worthwhile professions.

Table 2 suggests that Houghton has had some small effect in increasing the flow of entrants into postgraduate teacher training courses. But, as the chairman of the CRACH council of management, Edwin Peison, writes in his foreword to the report: "The number applying for courses in mathematics and the physical sciences are still well below those needed to sustain the reaching of these important subjects in the school curriculum and urgent action is needed to stimulate recruitment in these areas."

It will be seen that an 11 per cent increase in the number of graduate men entrants for mathematics/science was partly offset by a 9 per cent decrease in the number of women.

Reading this report, and recalling that "redundancy at 50" proposal, made me think of my senior physics and biology colleagues, who are retiring this summer after a combined total of nearly 80 years' service to the school.

Their scholarship has added immeasurably to the school's reputation, and they have provided much of the continuity needed for any institution to achieve anything near its full academic and pastoral potential.

At a recent Royal Society conference I heard Dr Eric Briault say that he would retire still amazed at the conservatism of school teachers. Those who have themselves been schoolteachers will know the changes in curricula, syllabuses, methods, equipment, organization, and social ethos which my two colleagues, and hundreds like them in other schools, have absorbed without lowering their standards of teaching and of care; and will also appreciate the sheer labour that such changes have entailed. Will we ever see the like of my colleagues again? I certainly hope so, but I fear not.

The author is head of chemistry, Chislehurst and Sidcup Grammar School. The report can be obtained from CRACH Ltd, 3 Crawford Place, London W1H 2BN. Price £1 post free.

Table 1. Entries to three/four year courses in Colleges of Education/Polytechnic Education Departments/Faculties. (This table does not include entrants to "shortened" courses.) The 1975 figures include entries to two-year DipHE courses.

	1971	1972	1973	1974	1975
(a) Total entry	35,715	34,961	32,930	29,663	27,188
Number of men	9,895	9,673	8,561	7,133	6,565
Percentage of men	27.7	27.7	26.0	24.5	24.1
(b) Percentage with one or more passes at A level:					
Men	67.1	68.7		69.6	68.8
Women	65.9	69.0	68.4	68.9	69.6
(c) Percentage with an O-level pass in mathematics:					
Men	68.8	66.9	67.6		67.9
Women	55.1	56.1	55.7	55.2	56.0

Table 2. Entrants to postgraduate courses of initial training in education.

	1971	1972	1973	1974	1975
(a) Departments of Education:					
Total entry	5,045	5,175	4,913	4,769	4,959
Men	2,495	2,563	2,484	2,301	2,491
Men, math/science	1,136	1,167	1,139	951	1,061
Women, math/science	774	745	689	676	614
(b) Colleges of Education and Polytechnic Departments/Faculties:					
Total entry	4,232	5,697	5,846	5,129	5,609
Men	1,890	2,780	2,740	2,263	2,557
Men, maths/science	605	970	875	636	704
Women, maths/science	291	[illegible]	361	322	256

David Walker interviews Miss Olive Stevenson

Ambitious Keele gains the social workers' friend

Keele University has recently appointed an old Oxonian, Miss Olive Stevenson, to the task of overseeing its ambitious plans to expand social work education and research.

On the face of it, the gleaming spires and the harsh concerns of practical social work are an unusual juxtaposition, and the still marginal place of the department of social and administrative studies in Oxford University, where Miss Stevenson holds a personal readership, bears that out.

But Miss Stevenson, 45, does combine 15 years of Oxford academic life, during which she produced highly regarded papers and extensive research, with a sincere regard for practising social workers, who have recently come under heavy fire in a series of well-publicized inquiries.

In a letter to *The Times* after the inquiry into the death of the King's Lynn boy Steven Meurs, Miss Stevenson wrote a heated defence of young social workers and the responsibilities they shouldered. The same attitude made her dissent from the majority report on the Maria Colwell inquiry.

Keele University may be gaining an accomplished academic figure—with her Radio Three broadcasts and conference demeanour Miss Stevenson has all the attributes of the academic grande dame—but social workers in the field are also gaining a friend.

Miss Stevenson read English at Oxford and then returned in 1960 to start the university's hesitant involvement with vocational social work education. She admits that after so long she cannot leave the place without regret.

However she does not conceal her excitement at joining a new department where social work will be accorded full academic rights. In retrospect she considers Oxford could be more welcoming to teachers of graduates outside the mainstream of college life. There could be more places for women as fellows of colleges, too.

Her move to Keele has been widely welcomed by her academic colleagues. The first editor of the *British Journal of Social Work*, she is well known as the author of papers and of books such as *Claimant or Client?* which was based on material collected while she was social work advisor to the Supplementary Benefits Commission.

Social work teachers emphasize her general contribution to the subject. When Professor Phyllida Parsloe took over at the *BJSW* she said: "In three years Olive Stevenson has built up the journal so that it now holds an established place amongst social workers and teachers. . . ."

Some of her work has had a mixed press; she has been thought curiously apolitical However, reputations in social work education are very difficult to pinpoint.

Though they probably include the same proportion of charlatans, deadbeats, intellectuals and saints as other academic specialists, social work teachers are generally much more polite about their colleagues than, say, economists, who can be relied upon to carp unmercifully.

Most important, in Miss Stevenson's case, social work teachers, like medical academics or engineers, are never beholden to the academic community alone: over their shoulders are the professionals doing the job in the field.

What is certain is that Miss Stevenson is a widely known and respected figure among social workers, administrators and government social services bodies. Her own experience of practical social work is extensive. Many foster parents have benefited from the sound practical approach of her book *Someone Else's Child* which she wrote after holding the Susan Isaacs research fellowship at Bristol University in the late 1950s.

Miss Olive Stevenson.

In the eyes of the Department of Health Miss Stevenson and the interdisciplinary research team she has recruited at Oxford have proved a useful source of data on the detailed working of social services departments in local authorities and on the feelings and perceptions of individual social workers.

After undergraduate Oxford Miss Stevenson went on to the London School of Economics and took a certificate in child care. Then, following a spell as a child care officer in Devon, she took the Tavistock advanced social casework course—which some future historian might find was one of the most formative influences, along with individuals such as Mrs Clare Winnicott, on a whole generation of social workers and teachers.

To this background in individual casework and Miss Stevenson's experience of psychoanalysis, was grafted in the 1960s growing interest in sociology and the contribution of other social sciences in social work.

Miss Stevenson believes firmly in the need for a shifting balance between sociology and psychology and between individual casework and community work: "Social work is not pure social science because one always has one's eye on a job to be done."

She rejoices in this eclecticism, believing that it reflects an exciting stage in the development of social work. "Once a things gets too firmed up, it ossifies. Take legal education, aspects of it are very rigid. In social work there is no possibility of doing without a mixture. The state of the social sciences makes swings and fashions inevitable.

"The Central Council for Education and Training in Social Work has, for example, done its best in laying down certain things for the social work qualification courses, but it has not laid down a national curriculum: it has been very keen on preserving diversity."

She might have added that the CCETSW has benefited from her range of experience and the intellectual effort she has made—such as in a recent paper for the BJSW entitled "Knowledge for Social Work"—to sort out the conceptual bases of an expanding subject.

Oxford, she admits, found this lack of a single intellectual home rather puzzling. She recently wrote: "My title in the university is in 'applied social studies'. When I am introduced as a sociologist, I plaintively and somewhat defensively tell the visitor that I am jack of all trades and mar none.

"There is a constant frus and anxiety in a role which req one to know a little about a g deal. Yet we should be ca of theory for practice, that is the selection and use of theory a professional purpose."

Despite the disclaimer, expertise has been increasingly demand by government. Her in Introduction to public service ca with her work for the Sup mentary Benefits Commission, secondment from Oxford, includ a number of empirical studies, as one on the workshy.

Later came her service on committee of inquiry into the and supervision provided for M Colwell, who died at the hands her stepfather in Brighton. Stevenson presented a minority port which expressed deep pathy for the social w involved.

She says: "It was a public weeks, the first time I had lawyers in an adversary situ close quarters. The minutiae of what happens when a c wrong came out and I learnt deal of how social workers are by the public and by other pro sionals."

Since the Colwell inquiry she has spent much time talking to gr of social workers about the involved, and now seriously wo whether such public inquiries paradoxically, be harmful. In cases she feels that young workers have been loaded with disproportionate share of respo bility.

On the Colwell panel she con trated on "inter-professional c munication", which ought to b aspect of post-qualifying social w courses. No doubt the new co planned at Keele under her g including, she hopes, expanded p experience shorter courses for p tising social workers, will re her experience.

Charles Handy examines the growth of business schools in Britain

'Cuckoo in the nest' celebrates its 10th birthday

Over 10 years ago the business school idea was introduced to Britain. It is clearly naive to look for dramatic cures to Britain's managerial ills from this one educational import, particularly in its first decade.

Even in this fast-moving age one may be allowed a decade to get established, particularly when the British tradition of apprenticeship rather than formal training for professional practice is being challenged.

The universities at first regarded the schools with some suspicion, unused to seeing their research degrees used to give recognition to professional training courses, and unsure of what standards of entry or of exit should appropriately be applied to this cuckoo in their nest.

Business, the ultimate client for the graduates and research ideas of these new institutions was unused to the idea that study on its own could confer professional status and premium pay. It was reluctant to recognize the institutions as authoritative professional bodies, preferring instead to regard them as store houses of potential, but not therefore unquestioned, talent.

Now that the university schools of management are into their second decade it is timely to ask whether this transplant from America has worked, or whether, like azaleas, these rather exotic plants can only thrive in their native soil or when surrounded by imported peat to protect them from the inhospitable earth of their new home.

Are the multinational companies, the American subsidiaries, the investment banks and the high technology companies which all figure so largely in the schools' lists of employing and sponsoring organizations a protective layer of insulating the schools from their environment? Or are they the early examples of a growing trend? Do the assumptions which underly the work of the schools of management apply today in Britain?

The first of those questionable assumptions is that in developing individuals in their own interest one thereby develops organizations and ultimately society. This assumption allowed the schools to anchor themselves in the university tradition of education for individuals and at the same time accept sponsorship from employing organizations and from government.

This assumption is only tenable in a society where the measure of success is the same for individual, organization and society. Post-war America came close to this with material prosperity or economic growth as the universal indicator.

It was assumed that this same universal indicator did or should apply in Britain and in continental Europe. This assumption is now widely questioned, even in America. It seems that Europe is more of a multi-purpose society, with several indicators of success at societal, organisational and individual level.

If the schools stick to the original assumption within a changed society they will deserve the accusation which was laid before them at a recent conference of "training mercenaries for the highest bidder".

A second starting assumption for the management schools was the existence of an intellectual tradition in organizations. In the United States, whence the schools drew their models, nearly half of the working population has had some form of further or higher education. Universities and educational institutes are seen as potentially useful resources and regarded with some respect.

In the United Kingdom the university was until recently the perquisite of the minority, a minority moreover which rarely entered the larger formal organizations but preferred the professions, government administration, politics or the arts.

The situation is beginning to change as the expansion of further and higher education have its effect but until recently the managers of Britain had on average less years of education in their background than their counterparts in any developed country.

The result has been a deeply rooted belief by our managers in the value of experience as teacher and a suspicion of any education which was not severely practical and could thus be defined as training.

Lord Boyle's definition of a university as a place for "learning in an atmosphere of research" was not one likely to appeal to the pragmatic managers of Britain, and schools based on a research tradition, a belief in education as personal growth, with teachers long on knowledge but short in experience, were bound to encounter suspicion, hostility and some fear, in an environment where common sense is praised and the simple but adequate solution preferred to the perfect.

It could, however, be that the British tradition has some theory to back it and that there is a third questionable assumption underlying the early work of the management schools.

This assumption was that management was a problem, or a set of problems, which could ultimately be "disciplined", so that sets of facts, rules, techniques and skills could be devised and subsequently taught to practising and potential managers.

There is now a growing acceptance of the view that the problem with management is not that we have failed as yet to unearth the governing laws of organizations and societies, but that there are, in many important areas, no laws to be discovered. This view of management as an "unbounded" rather than a "bounded" problem has huge implications for education.

Instrumental education, teaching things already known, is relatively well understood. Educating people to solve unanticipated problems must be a different process. If the schools confine themselves to the bounded areas of management and to the teachable techniques they confine themselves to some necessary but low priority problems. Their status and influence will decline proportionately.

There is a fourth assumption which the schools found waiting for them in their foster homes of the established universities: the tradition that "cultivated individualism" is the appropriate stance of university management.

The institution is supposed to be a seedbed for individual initiative where excellence is the measure of all things, irrespective, within broad limits, of activity or fields or purpose. Cultivated individualism fits the age-old traditions of academic freedom. Conducted within a protected environment it can however look dangerously self-indulgent.

The business schools, like the professions and the universities, are necessarily elitist because of their restricted entry. However, elitism carries responsibilities as well as privilege. There is a real danger, under an individualist ethos, that the privilege appears to outweigh the responsibility. Hence the tag of mercenary which can apply to faculty as much as to student.

It is at least arguable that the universities as a whole are today under some attack not because of a failing excellence, or an obvious irrelevance, but because protected individualism is out of kilter in an open society unless accompanied by a very obvious sense of responsibility and perceived achievement.

It can further be argued that cultivated individualism within universities and professions has failed to provide significant influence in society and that the upsurge of specialist institutes, study groups and tailored educational programmes is only a response to a felt need for a more purposeful use of scarce talent, a more managed synergy.

If the business schools are going to live up to the dreamier expectations of their founding fathers they must see themselves more as centres of investigation and influence in an open society and not merely as warehouses of talent or secular monasteries for the world of management; they must push a wedge of purpose through the cult of individualism; and they must look again at their mechanisms and their purposes.

In this reexamination they might question:

- Whether apprenticeship as a mode of learning is outmoded just because it is old or whether it might and could be developed and formalized in some way, although the notion of teaching companies is probably neither so easy nor so effective as the name implies.
- Whether the knowledge and skills contained in the underlying disciplines of management (economics, statistics, psychology, accounting) should not be more widely spread throughout the managerial population and learnt more generally and at an earlier stage (undergraduate or even O and A levels);
- Whether it might not raise the whole level of managerial language and debate if entry into management could to some degree depend on a certificated competence in those basic areas, leaving the more experimental learning to take place at the apprenticeship stage.
- Whether in such a scenario the postgraduate schools should move to a more developmental (as opposed to production) role in the system, providing new ideas, methodologies and teachers, in addition to a small supply of graduates.
- Whether more effort and experiment is not now needed to recognize the wisdom factor in management, by perhaps more flexible definitions of faculty to include senior practitioners, or by enlightened use of sabbaticals to bridge the gap (both ways) between the worlds of thought and action.
- Whether it is not necessary to recognize more obviously that the new truths of management are less often to be found in the lonely cells of a researcher's study but in the arenas of action, and therefore that the work organizations are the experimental laboratories of management and should be recognized as such.
- Whether the unbounded, even insoluble, dilemmas of management do not require of the schools a more humble posture where they become the centres for debate, so that some of the ideological issues of our day are aired in their halls even though no technical solution emerges to be "taught" to "students".

If the business schools pick up any of these implied challenges they may well add further irritants to their uneasy relationship with the universities. Unless, of course, the universities choose to see their ways as paths to a possible future!

The author is a professor at the London Graduate School of Business Studies.

LETTERS TO THE EDITOR

The future of English studies

from Mr Terence Hawkes

Sir,—Professor Bantock has evidently missed the central point of Mr Fiske's excellent letter (*THES*, March 19).

It is not "certain fundamental traits" that are permanent in Western societies but the *process* by which those traits are variously made discernible, given prominence, afforded particular social embodiments.

Permanency resides, not in any one "reality" or "nature", but in the structuring activity which generates the wide range of these revealed by history and anthropology.

Clearly, it seems "natural" to Professor Bantock to cite *Oedipus*, *Hamlet* and *King Lear* as instances of permanently relevant "great literature". It is worth reflecting that, as plays, none of these works is essentially a work of literature at all.

Moreover, if their treatment of "aspects of parent-offspring relationships" stands as the common element which guarantees their relevance, then the relative triviality of that should put their greatness in doubt.

In effect, Professor Bantock's argument merely reinforces a particular version of the "natural" and the "real" which, since the Renaissance, and increasingly since the industrial revolution, has sought to turn most of art into literature, and to reduce most ideas of "relevance" to a diminished literary dimension.

It is this gigantic process of total "literarization" that has now run out of steam and begun to seem belittling of our experience of the world.

For many years, a succession of apocalyptic complaints have indicated that Chicken-Licken is alive and well and teaching English at Cambridge. However, Mr Fiske is right to direct our attention to a world elsewhere: away from the printed word and towards the medium that has supplanted it.

The sky is not falling, we are simply constructing a different version of reality. Nature, after all, does not grow on trees.

Yours sincerely,
TERENCE HAWKES,
Department of English,
University College,
Cardiff.

from Mr G. Kim Blank

Sir,—It has become apparent by having sympathetically observed the ongoing Gibb - Holloway - Richards-Fiske-Keaney—*et al* discussion that literary criticism, and by extension, English studies itself, is suffering from an identity crisis.

This was epitomised by Miss Margaret Berg's reactionary statement that practical criticism is the "only" justifiable approach to "the continuation of literature" (*THES*, March 19). Without condemning "prac. crit." (admittedly, it is indeed a credible approach to literature), it goes without saying how limiting "only" one approach to any faculty of study is.

Due to what I have called an "identity crisis" (a term which is, notably, normally associated with an adolescent state of being), everyone seems to be bent on creating their own rationalized "ivory tower" to substantiate individual scholarly endeavours.

Instead of allowing for a certain amount of overlap between the various critical approaches, thus making criticism and literature a linear continuum, the trend at present has been to either pile approaches on top of the work as one would heap logs upon a fire, or to possessively confine approach; unfortunately, the former smothers the work, while the latter tends to make it esoteric.

It seems there must be some common ground between the linguists, Marxists, Leavisites, or whatever . . . after all, there is "only" the artist, the art, and the universe to deal with—but wouldn't it be a pity if never the three did meet.

Yours faithfully,
G. KIM BLANK,
Department of English,
University College of North Wales,
Bangor.

ILEA transfer

from Mr John Webster

Sir,—If Janey Rees really believes (*THES*, March 26) that the ILEA has the ability in the present economic climate to transfer resources from overseas students to British students, then she should not be the chairperson of the ILEA higher and further education sub-committee.

The simple fact is that it is considerably more expensive to replace overseas students with British students, because the former pay for themselves, at levels substantially higher than British students, while British students are almost all grant-aided and have their fees paid by their l.e.a.

To make such a statement less than a month after the chancellor's white paper on public expenditure, in which education comes under heavy attack, is doubly ludicrous. Given that British students are more "expensive" than overseas students, then to provide for the "less able, the disadvantaged and the unemployed" (the ILEA pledge) is a matter of substantial expenditure and expansion. This would be in complete opposition to the strategy of the Government with regards to public expenditure.

Ms Rees has singularly failed to convince any organization that the cuts proposed among overseas students are not a smoke screen for reducing public expenditure. Both the Inner London Region of National Association of Teachers in Further and Higher Education and the London Students Organization (the area organization of NUS) are opposed to them, and there is considerable sympathy for this position from labour movement organizations, including sections of Ms Rees' own party.

The implementation of the proposals will be opposed college by college. So far, a number of academic boards at polytechnics and colleges of further education have rejected the plans and others will follow.

In my opinion, by trying to placate London taxpayers and potential British students by making impossible promises of money transferred to them by a reduction in overseas students is squalid and racist. It is not an accusation that one makes of a Labour authority lightly.

Yours sincerely,
JOHN WEBSTER,
Secretary, London Students Organization,
Vice-president, National Union of Students.
University of London.

Kent classics

from Dr Shirley Barlow

Sir,—I read with great interest Adeline Hartcup's article on university classics teaching (*The THES*, March 26). I should just like to point out however one evident misunderstanding in communication.

The number 130 for Kent should include those taking any kind of classics course and not only the ancient languages as stated. It includes those taking degree courses in the languages, in classical civilization and courses for other students such as the Roman empire (for historians) or drama or tragedy where there is a classical component.

Yours sincerely,
SHIRLEY BARLOW,
Department of classical studies,
University of Kent.

Conditional grants

from E. A. Whiting

Sir,—I have read with amazement the article by Tony Flowerdew and Richard Lazard on "The case for 'conditional grants' for home students". (*THES*, March 26.) They seem almost to destroy their own case as they go along: "this scheme would not help the Government's short-term problem", they say, "Any increase in students' spending power is going to be inflationary".

May I put a few more nails in their coffin?

- To make any system which purports to be fair depend on the capricious movement of future inflation is an absolute nonsense. Inflation may subside to quite a low rate, in which case the student will be no better off than before—which the authors claim is a "deplorable" standard.

If inflation races ahead, however, the "conditional grants" will become very large with a heavy repayment commitment, should inflation slow down again.

- If inflation proceeds only moderately during the 20 years of working life when the grant is being repaid, the now-employed graduate will be paying back a smaller and smaller proportion of his money income, profiting at the expense of the Government, which was fool enough to make a long-term loan without any regard for the effects of inflation.
- Students from poorer homes have increased in number because of grants, but the proportion of students to total numbers in the low-income groups is still far less than the student proportion in the high-income groups, and I believe that this discrepancy in the proportions has not changed much in recent years.

The cycle of deprivation continues. The numbers going to university from the lowest-income families is still insignificant. Higher education may be "less class-biased in Britain than in most of Europe" but in Scandinavian and the richer EEC countries there is more higher education per head anyway, which must therefore extend lower down the income strata.

- The administrative cost of the proposals would be enormous. The present system administered by local authorities is absurdly ineficient and very costly, probably of the order of £10m a year.

Flowerdew and Lazard will leave this dreadful system unchanged and add further millions to the cost for administering the "conditional grants", chasing up the non-payers of loan instalments over 20 years (many may leave the country) and collecting fees from students for university courses.

- The authors would presumably retain the parental contribution, because to abolish it "would inevitably increase the proportion of middle-class students in universities", but there is no mention of how the contribution would fit into their scheme.

I would agree that the parental contribution does work as a redistributive factor, but it is inefficient, unfair and does not produce the effect that it should largely because the scale of contributions is not progressive.

All students should have adequate grants as of right and the collection of parental contributions should be done entirely through income tax (in a similar way to the "clawback" of family allowances) at almost no extra cost to the Inland Revenue, but saving almost all the present administrative expense of local authorities.

The scale of "clawback" should be sufficient to tax away, for rich parents, the whole cost of university education—which is far from the case now. This should materially increase the relative opportunity for children of poorer parents to go on to higher education.

Yours faithfully,
E. A. WHITING,
Chesworth Close,
Horsham,
Sussex.

Scottish devolution

from Mr. A. N. Main

Sir,—Dr Skilton (*THES*, March 26) seems offended that the Scottish Universities Devolution Advisory Committee should ignore the views of members of the AUT (Scotland).

The SUDAC believe that university academic staff will be no more affected by devolution than students, non-academic staff, those in other sectors of Scottish education, and the Scottish community as a whole.

That is precisely why we have gathered together representatives of all but one of the Scottish political parties, the Scottish trade union movement, local authorities and all sectors of the university population.

We certainly have not ignored the views of other pressure groups. Instead, we have worked to ensure that no one such group should sway the final political decision that must be made.

Yours faithfully,
A. N. MAIN,
Chairman, SUDAC,
MacGregor Road,
Seafar,
Cumberland.

more letters page 14

Open University programmes April 10 to 14

Saturday April 10

BBC 2

7.40	Mathematics foundation course: Signposting the Course (M100; prog 10).
8.05	Arts foundation course: The Image in the Cloud (A100; prog 12).
8.30	Topics in pure mathematics: Group Automorphisms (M202; prog 10).
8.55	Regional analysis and development: A Case Study of Lancashire (D342; prog 3).
9.20	People and organizations: Ford Interview (2) (DT352; prog 4).
9.45*	Ecology: Ecological Sampling (S323; prog 4).
10.10	Curriculum design and development: Stantonbury: A Blueprint (E203; prog 6).
10.35	Linear mathematics: Normal Forms (M201; prog 10).
11.00	Reading development: Reading Activities with Young Children (PE261; prog 4).
11.25	War and society: Women in Two World Wars (A301; prog 5).
11.50	Geology: Zone Fossils (S23-; prog 6).
12.15	Comparative government and politics: Inequality, Politics and the Chinese Revolution (D231; prog 3).
12.40	Telecommunication systems: Noise and Interference (T321; prog 5).
13.05	The nineteenth-century novel and its legacy: The Novel and Television (1) (A302; prog 6).
13.30	Comparative physiology: Circulation of the Blood (S32-; prog 8).

RADIO 3 (VHF)

6.20	Urban development: Chicago's Regional Hinterland (DT201; prog 10).
6.4.	Patterns of inequality: Patterns of Inequality: Denmark (D302; prog 8).
7.00	Thought and reality: central themes in Wittgenstein's philosophy: Wittgenstein on "simples" (A402; prog 5).
7.20	Elementary mathematics for science and technology: Revision (MST281; prog 5).
7.40	International politics and foreign policy: Foreign Policy of Small States (D332; prog 5).

RADIO 4 (VHF)

Excluding north Scotland and parts of Wales

9.05	Open Forum.
9.25	Twentieth-century poetry: Sweeney Agonistes (A306; prog 5).
9.45	History of architecture and design 1890-1939: The Debate between Van de Velde and Muthesius (A305; prog 11).
10.05	Mathematics foundation course: Revision (M100; prog 10).
10.30	Arts foundation course: Patronage in Art: Logic Translation (A100; prog 12).
10.55	Technology foundation course: The Discovery of Nuclear Fission (T100; prog 19).
11.18	Making sense of society: Communication and Social Science (D101; prog 10).
11.34	Science foundation course: Penicillin (S100; prog 10).
14.00	Microeconomics: On Reflection (D222; prog 4).
14.20	History of mathematics: The Origin of Our Counting System (AM289; prog 4).
14.40	School and society: Pedagogy (E202; prog 6).
15.00	Renaissance and Reformation: Piero della Francesca (A201; prog 10).
15.20	The Use of Libraries—1.
15.40	Decision-making in Britain: Farmers as Independent Decision Makers (D203; prog 10).
16.00	Curriculum design and development: Botswana: School and development (E203; prog 7).
16.20	People and work: The Subjective Experience of Work in Capitalism: A Discussion (DE351; prog 6).
16.40	Reading development: Using Context Clues (PE261; prog 3).

RADIO 3 (VHF)

Additional programmes for North Scotland and parts of Wales

24.00*	Renaissance and Reformation: Piero della Francesca (A201; prog 10).
00.20*	History of mathematics: The Origin of our Counting System (AM289; prog 4).
00.40*	Microeconomics: On Reflection (D222; prog 4).

Sunday April 11

BBC-2

7.40	Technology foundation course: Atoms and Molecules (T100; prog 19).
8.05	Making sense of society: Pearl Harbour (D101; prog 10).
8.30	Science foundation course: Covalent Compounds (S100; prog 10).
8.55	Systems behaviour: The Coal Face (T241; prog 6).
9.20	An algorithmic approach to computing: From Problem to Program (M251; prog 3).
9.45	Principles of chemical processes: Fractionation (ST294; prog 5).
10.10	People and work: Biscuits (2) (DE351; prog 5).
10.35	Education, economy and politics: 1944 and After (E352; prog 3).
11.00	Man-made futures: design and technology: File Programme: Shelter (T262; prog 3).
11.25	Science and the rise of technology since 1800: Sulphuric Acid—The Lead Chamber Process (AST281; prog 3).
11.50	The handicapped person in the community: Deaf in a Hearing World (P853; prog 4).
12.15	Great Britain 1750-1950: sources and historiography: Two Yorkshire Families: The Landed Elite 1750-1850 (A401; prog 6).
12.40	Earth science topics and methods: Geological Mapping (S333; prog 5).
13.05	Urban development: Chicago Transport: A Case Study (DT201; prog 8).
13.30	Elementary mathematics for science and technology: The Fundamental Theorem of Calculus (MST281; prog 6).

RADIO 3 (VHF)

6.20	The digital computer: Preparing a Programme for OPUS (TM221; prog 6).
6.40	Statistical sources: Positive Discrimination (D291; prog 6).
7.00	Personality and learning: Piaget and After (E201; prog 10).
7.20*	International politics and foreign policy: Foreign Policy of Small States (D332; prog 5).
7.40	Technology for teachers: Technology in a New School Community (PET271; prog 7).

RADIO 4 (VHF)

9.10	Public administration: Planning in the Department of Education and Science (D331; prog 8).
9.30	Regional analysis and development: Retraining of People (D342; prog 4).
9.50	Systems performance: Human factors and systems failures: Methodologies under Fire (TD342; prog 2).
10.10	Systems modelling: Linear Programming—A Case Study (T341; prog 2).

RADIO 3 (VHF)

24.00*	Renaissance and Reformation: Piero della Francesca (A201; prog 10).
00.30*	Twentieth-century poetry: Sweeney Agonistes (A306; prog 5).
00.40*	History of architecture and design 1890-1939: The Debate Between Van de Velde and Muthesius (A305; prog 11).

Monday April 12

BBC 1

7.05	Genetics: Genes on the Circle Line (S299; prog 4).
7.3	Structure, bonding and the periodic law: Entropy, the Gibbs Function and Electropositive Character (S25-; prog 6).

BBC 2

6.40*	Man-made futures: design and technology: File Programme: Shelter (T262; prog 3).
7.05*	Reading development: Reading Activities with Young Children (PE261; prog 4).
7.30*	Systems behaviour: The Coal Face (T241; prog 6).
17.00*	The handicapped person in the community: Deaf in a Hearing World (P853; prog 4).
17.25*	Geology: Zone Fossils (S23-; prog 6).
17.50	Quantum theory and atomic structure: Fourier Analysis (SM351; prog 3).
18.15*	Mathematics foundation course: What is a Limit? (M100; prog 7).
18.40*	Technology foundation course: Atoms and Molecules (T100; prog 19).

RADIO 3 (VHF)

6.00*	Decision making in Britain: Farmers as Independent Decision Makers (D203; prog 10).
6.20*	Microeconomics: On Reflection (D222; prog 4).
6.40*	School and society: Pedagogy (E202; prog 6).
18.05	Problems of philosophy: a Debate on the Existence of God (A303; prog 5).
18.25	The development of instruments and their music: Dances in the Suite (A304; prog 6).
18.45	Urban education: Professors in the City (E351; prog 4).
10.10*	Making sense of society: Communication and Social Science (D101; prog 10).

(Additional programmes for North Scotland and parts of Wales)

24.00*	History of architecture and design 1890-1939: The Debate between Van de Velde and Muthesius (A305; prog 11).
00.20*	Arts foundation course: Patronage in Art: Logic Translation (A100; prog 12).
00.45*	Open Forum

Tuesday April 13

BBC 1

7.05	Mechanics and applied calculus: Volume and Surface Integrals (MST 282; prog 5).
7.30*	Telecommunication systems: Noise and Interference (T321; prog 5).

BBC 2

6.40	Social psychology: Early Interactions (D305; prog 5).
7.05	Management in education: Atkinson College—Management in Crises (E321; prog 7).
7.30	School and Society: Classroom Interaction (E282; prog 3).
17.00*	People and organizations: Ford Interview (2) (DT352; prog 4).
17.25*	Regional analysis and development: A Case Study of Lancashire (D342; prog 3).
17.50	The age of revolutions: Jefferson the Architect (A202; prog 5).
18.15*	Genetics: Genes on the Circle Line (S299; prog 4).
18.40	Science foundation course: Covalent Compounds (S100; prog 10).

RADIO 3 (VHF)

6.20*	History of Mathematics: The Origin of Our Counting System (AM289; prog 4).
6.40	The Earth's physical resources: The Bases for Decisions on Energy (S266; prog 1).
18.05*	Thought and reality: central themes in Wittgenstein's philosophy: Wittgenstein on "simples" (A402; prog 5).
18.25*	Patterns of inequality: Patterns of Inequality: Denmark (D302; prog 8).
18.45	The early Roman empire and the rise of Christianity: Stoicism in Seneca's Tragedies (A291; prog 5).
10.05*	Arts foundation course: Patronage in Art: Logic Translation (A100; prog 12).

Additional programmes for north Scotland and parts of Wales

24.00*	Science foundation course: Penicillin (S100; prog 10).
00.25*	Mathematics foundation course: Revision (M100; prog 10).

Wednesday April 14

BBC 1

7.05	Electromagnetics and electronics: Transistor Operation—Part I: Transient Response—Part II (T282; prog 6).
7.30	Ecology: Tropical Forest (S323; prog 5).

BBC 2

6.40*	War and society: Women in Two World Wars (A301; prog 5).
7.05*	Great Britain 1750-1950: sources and historiography: Two Yorkshire Families: The Landed Elite 1750-1850 (A401; prog 6).
7.30	History of architecture and design 1890-1939: Berlin Siedlungen (A305; prog 9).
17.00*	School and Society: Classroom Interaction (E282; prog 3).
17.25*	Elementary mathematics for science and technology: The Fundamental Theorem of Calculus (MST281; prog 6).
17.50*	Mechanics and applied calculus: Volume and Surface Integrals (MST 282; prog 5).
18.15	Art and environment: Me and Not Me (TAD293; prog 3).
18.40*	Arts foundation course: The Image in the Cloud (A100; prog 12).

RADIO 3 (VHF)

6.00*	Reading development: Using Context Clues (PE261; prog 3).
6.20*	Urban education: Professors in the City (E351; prog 4).
6.40*	People and work: The Subjective Experience of Work in Capitalism: a discussion (DE351; prog 6).
17.45	The age of revolutions: Jeffersonianism in American History (A202; prog 10).
18.05*	Urban development: Chicago's Regional Hinterland (DT201; prog 10).
18.25	New trends in geography: Industrial Re-location: A Regional View (D281; prog 6).
18.45	Solids, liquids and gases: The Maxwell Boltzman Distribution (ST285; prog 2).
19.05	Mathematics foundation course: Sequences and Limits I (M100; prog 7).

RADIO 3 (VHF) (Additional programmes for north Scotland and parts of Wales)

24.00*	The Use of Libraries: 1.
00.20*	School and society: Pedagogy (E202; prog 6).
00.40*	Curriculum design and development: Botswana: School and development (E203; prog 7).

* Repeated programme.

NOTICE BOARD

Appointments

Universities

Liverpool

Academic Secretary: J. S. Padley, Assistant Secretary, University of Leeds.

Oxford

Ford Lectureship in English History 1977-78: F. S. L. Lyons, Provost of Trinity College, Dublin.

General

Mr Alex McKay, General Secretary of the Institution of Chemical Engineers, has been appointed Secretary of the Institution of Mechanical Engineers.

Mr Robin Philipson, President of the Royal Scottish Academy, and Mr T. Henderson, Convener of Zetland County Council, have been appointed to the governing body of the Board of Trustees of the National Museum of Antiquities of Scotland.

Pygmy hippos at London Zoo. An illustration from the Zoological Society of London's annual report for 1975, which has just been published.

Awards

Fellows of the Royal Society: Professor G. Allen, professor of polymer science, Imperial College, London; Mr S. P. S. Andrew, research and development group manager, Agricultural Division, ICI; Professor F. P. Bowden, Halliburton professor of physiology, King's College London; Dr P. M. Biggs, director of the Houghton Poultry Research Station, Huntingdon; Professor J. W. Black, professor of pharmacology, and head of the department of pharmacology, University College London; Professor R. J. Blin-Stoyle, professor of theoretical physics, University of Sussex; Professor D. J. Bradley, professor of applied optics, Imperial College, London; Professor J. I. G. Cadogan, Forbes professor of organic chemistry, University of Edinburgh; Professor W. G. Chaloner, professor of botany and head of the department of botany, Birkbeck College, London; Professor H. Charnock, director of the Institute of oceanographic sciences, Godalming, Surrey; Professor Patricia H. Clarke, professor of microbial biochemistry, University College, London.

Professor G. Ellington, professor of organic geochemistry and head of the organic geochemistry unit, University of Bristol; Professor R. J. Elliott, Wykeham professor of theoretical physics, University of Oxford.

Dr L. T. Evans, chief of the division of plant industry, CSIRO, Canberra, Australia; Professor A. Fröhlich, professor of pure mathematics and head of the department of mathematics, King's College London; Professor W. S. Gibson, professor of biochemistry and head of the department of Medical Research in the Australian National University, Canberra; Dr L. G. Goodwin, director of science, The Zoological Society of London; Professor E. G. Gray, professor of anatomy, University College London; Sir L. Guttmann, Emeritus consultant to the Stoke Mandeville Hospital, Aylesbury, Buckinghamshire; Dr J. M. Hammersley, reader in mathematical statistics, University of Oxford.

Sir W. MacGregor Henderson, secretary of the ARC, London; Dr R. Hollaby, head of the division of genetics at Rothamsted Institute for Medical Research, London; Dr J. H. Horlock, vice-chancellor of the University of Salford; Dr G. B. Mackaness, director of the Trudeau Institute, Saranac Lake, New York State, USA; Dr D. Peter McKenzie, assistant director of research, department of geology and geophysics, University of Cambridge; Professor J. E. Nye, professor of physics, University of Bristol; Dr T. G. Rutherford, formerly director of the Chilton, Berkshire; Professor H. Ruth, professor of agricultural botany, University College of Wales, Aberystwyth; Professor J. M. Ritchie, professor of pharmacology, Yale University; Mr S. Robinson, technical director of the MEL Equipment Company Limited, professor of control engineering, University of Manchester Institute of Science and Technology; Dr J. D. Smith, member of the scientific staff of the MRC's laboratory of molecular biology, Cambridge; Professor S. D. Smith, professor of physics and head of the department of physics, Heriot-Watt University; Professor F. G. A. Stone, professor of inorganic chemistry and head of the department of inorganic chemistry, University of Bristol; Professor A. Thrust, university reader in physical chemistry, University of Cambridge.

Sir F. E. Warner, senior partner, Cremer and Warner, consulting chemical engineers, London; Mr W. Watt, consultant to director, Royal Aircraft Establishment, Farnborough; Dr M. J. Whelan, reader in the physical examination of materials, University of Oxford; Dr Elsie M. Widdowson, formerly head of the Medical Research Council Infant Nutrition Division of the Dunn Nutritional Laboratory, Cambridge; Professor R. H. S. Wood, professor of plant pathology, Imperial College, London.

Recent publications

Teaching Students, by Donald Bligh (published by Exeter University Teaching Services, Exeter University, Exeter, Devon, £2.80). A section on the traditional syllabus shows how departmental and a chapter on student selection shows the influence of factors other than the applicants' merits.

* * *

The Scottish Institute of Adult Education has just published its annual brochure of short residential study courses available throughout Scotland, lasting from two days to three weeks, ranging from archaeology to zoology. The courses are run by a variety of organizers including university extra-mural departments, the WEA, local authorities and independent schools. The list is available from the SIAE, 57 Melville Street, Edinburgh EH3 7HL. 15p.

Chairs

Dr S. Campbell, senior lecturer, Institute of Obstetrics and Gynaecology, University of London, has been appointed to the chair of obstetrics and gynaecology at the institute.

Dr M. M. Bowie, Tutor at Clare College, Cambridge, has been appointed to the chair of French at Queen Mary College, University of London.

The title of Professor of Neonatal Paediatrics has been conferred on Dr E. O. R. Reynolds, in respect of his post at University College Hospital Medical School.

Dr F. W. Hemming, reader in biochemistry, University of Liverpool, has been appointed to the second chair of biochemistry in the Medical School, University of Nottingham.

Dr H. Burkhardt, senior lecturer in mathematical physics, University of Birmingham, has been appointed to the chair of mathematical education, University of Nottingham.

The title of professor has been conferred on the following: Mr J. C. Earls, deputy director, Robert Gordon's Institute of Technology, Aberdeen; Mr N. H. Langton, Dean of Faculty of Science and Head of School of Physics, Robert Gordon's Institute of Technology, and Mr S. Wilkinson, Dean of Faculty of Art and Architecture and Head of Scott Sutherland School of Architecture, Robert Gordon's Institute of Technology.

Grants

Universities

Belfast

Medicine—£40,000 from the Ulster Cancer Foundation for research on gastrointestinal hormones, their distribution and quantification in endocrine and non-endocrine tumours and related diseases.

Botany—£23,244 from the SRC for work on gene expression during the cell cycle of algae under the direction of Dr D. C. St John.

Aeronautical engineering—£21,484 from the SRC for research on the influence of flow unsteadiness on shock boundary layer interaction at transonic speeds.

Birmingham

Chemistry—£6,990 from the ARC for structural studies on lamic acids, degradation reactions with sodium sulphide solution under the direction of Dr M. H. B. Hayes.

Physical metallurgy—£17,814 from the SRC for research on field effects during thin film oxidation, under the direction of Professor R. B. Smallman.

Physics—£1,042 from the UKAEA for research of charged particle transport and energy disposition under the direction of Dr T. D. Beynon; £2,560 from the UKAEA for the development of microbeam analysis techniques under the direction of Professor J. H. Freeman.

Pure mathematics—£3,086 from the SRC for computational techniques and data processing for large finite groups under the direction of Professor D. Livingstone.

Psychology—£10,245 from the Mental Health Trust and Research Fund for environmental determinants of behavioural tolerance to the effects of drugs in rats and pigeons, under the direction of Dr F. K. Cortfield-Summer; £3,750 from the Mental Health Trust and Research Fund for research into the study of the biochemical determinants of drug addiction, biochemical aspects of brain plasticity in relation to cerebral membranes for drug addiction under the direction of Dr C. W. T. Pilcher.

Genetics—£3,081 from International Board for Plant Genetic Resources for conservation and utilization of plant genetic resources under the direction of Professor J. G. Hawkes.

Geological sciences—£3,200; from the NERC, for geochemical investigations of marginal basin phillonitics and associated sulpen phitonics under the direction of Dr J. Tarney.

Microbiology—£3,374 from the Belt Memorial Fellowship Trust for a Belt Memorial fellowship.

Zoology and comparative physiology—£2,520 from the Saudi Arabian Cultural Bureau for research materials under the direction of Dr. D. J. Butler.

Civil engineering—£1,895 from the SRC for the research of undisturbed soil sampling for geochemical purposes under the direction of Dr J. Billam; £16,748 from the Department of the Environment for work on bending strength of metal lighting columns, under the direction of Dr G. H. Little.

Transportation and environmental planning—£40,800 from the Insurance Institute of Highway Safety for study of pedestrian injuries and their origins; £24,072 from the SRC for study of motives in urban action. Barratt Stodes; research into the detection of low level air turbulence using acoustic techniques.

City

Systems science—£2,000 from KDG Instruments for research into mathematical modelling and design of semiconductor pressure transducers under the direction of Professor L. Finkelstein; £10,551 from the Wellcome Trust for research into mathematical modelling of the human respiratory system.

Physics—£3,000 from British Gas Corporation for research into ultrasonic spectroscopy under the direction of Professor A. F. Brown; £1,654 from May and Baker for research into collaborative research agreement on conformational studies of bioactive monocules under the directiof of Dr E. Stewart.

Chemistry—£2,641 from the Ministry of Defence for research into study of ignition characteristics of hydrocarbons at atmospheric pressure under the direction of Professor C. F. Cullis; £4,500 from Roussel Laboratories Ltd for research into claisen rearrangements and related reactions of heterocyclic systems under the direction of Professor P. G. Sammes; £4,928 from the Ministry of Defence for research into creep behaviour of structural adhesives under the direction of Mr K. W. Allen.

Ophthalmic optics—£35,676 (extension) from the SRC for research into ophthalmic optics and visual science.

Exeter

Chemical engineering and engineering science—£20,846 from the Council for Educational Technology for development of computer assisted learning methods for use with undergraduates.

Biological sciences—£13,100 from the SRC for study of methods of intracellular transport involving microtubules.

Physical geography—£6,231 from the NERC for a research programme on channel morphometry in relation to river discharge in British catchments.

Hull

Chemistry—£20,380 from the United States Air Force for a continuation of a research on the fundamental chemical reactions involved in combustion processes under the direction of Professor R. R. Baldwin and Dr R. W. Walker.

Electronic engineering—£6,085 from the SRC for an investigation into the design of fully adaptive circulators under the direction of Dr J. I. Sewell.

Kent

Electronic laboratory—£10,550 from the SRC for research on digital learning networks of adaptive logic units under the direction of Dr F. K. Hanna; £2,116 (supplementary) from the SRC for research on the synthesis of travelling wave and transmission type negative resistance microwave amplifiers under the direction of Dr M. I. Sobhy; £13,637 from the SRC for research on the development of sophisticated reflectors and antennas for microwave astronomy under the direction of Dr R. G. Gull and Dr C. I. Mayer for work on the biochemical fulvin and related drugs under the direction of Dr K. Gull and Dr C. I. Pogson; £3,830 from Unilever Ltd for work on the bioavailability of griseofulvin and related drugs under the direction of Dr R. B. Cain; £10,863 from the MRC for work on the regulation of metabolism in bacteria under the direction of Dr C. J. Knowles.

Leeds

Economics—£4,091 from the SSRC for research into the origins and effects of British commercial policy under the direction of Dr P. H. Cupin.

Management studies—£4,200 from the Distributive Industry Training Board for a studentship, under the direction of Professor J. Butterworth.

Gordon's Institute of Technology.

Sociology—£10,006 from the SSRC for a study of the career structure of the anglican clergy, under the direction of Dr R. C. Towler.

Physical chemistry—£31,839 from the SRC for a project on internal dynamic disorder and its relation to molecular organization in liquid crystals, under the direction of Dr N. Boden.

Plant sciences—£13,758 and £4,036 from the ARC for research on the significance of photorespiration in grass and cereal crops under temperate agricultural conditions, under the direction of Professor H. W. Woolhouse; £13,269 from the ARC for research on photosynthesis and assimilate distribution in a crop of winter wheat, under the direction of Professor H. W. Woolhouse and Dr L. D. Incoll; £11,519 from the ARC for research on effect of mycorrhiza infection in the improvements of hill pasture, under the direction of Professor P. B. H. Tinker; £2,000 from Ileano, Engrais et Produits Chimiques for research on the influence of endotrophic mycorrhizal fungi on the utilisation of fertilizer phosphorous by crop plants with particular reference to the maize crop, under the direction of Dr P. B. T. Sanders and Mr W. N. Townsend.

Wellcome marine laboratory—£4,469 (renewal) from Cremer and Warner for a consultancy, under the direction of Dr J. R. Lewis.

Electrical and electronic engineering—£12,258 from the Department of Trade and Industry for an investigation into transportable electrostatic frequency transfer unit meter, under the direction of Mr G. L. Bibby; £5,650 from the SRC for a project on anode power TIG welding, under the direction of Dr A. E. Gullo.

Newcastle

Child health—£5,630 from the Leukaemia Research Fund to provide further support for an investigation on the immune responses under the direction of Dr W. Walkor; £7,000 from the Tyneside Leukaemia Research Association of a study of fluorocarbons in the environment under the direction of Professor J. E. Lovelock.

Salford

Biology—£10,125 from the Ministry of Overseas Development for a project on selection of trinomid bugs.

Mechanical engineering—£30,131 from the Department of Health and Social Security to support a project on sessment, clinical management and engineering research into disability due to complex neuromuscular disorders under the direction of Mr J. T. Hanshaw.

Stirling

Aquatic pathobiology—£11,000 from the NERC for work on rabbits virus, a newly isolated virus of a shellfish, work on the Wellcome Trust for especially their cellular kinetics in health and disease.

Conferences, courses

The Mathematical Association's conference will be held at the University of Birmingham, Birmingham, 2TT, from April 11-14. The national meeting of teachers includes a review of current ties of interest to members of Association. Application forms, details from: William W. Wellington Road, Edgbaston, Birmingham.

* * *

"Working Class Consciousness", first Manchester history workshop, be held at the Manchester Polytechnic, Lower Ormond Street, Manchester 2BE from April 10-12. Speakers include professional historians, working men and women who from direct experience of the £1.50. Details from: B. Wilson, Director, Management Studies, Manchester Polytechnic, Hilton Street, Manchester M1 3

* * *

"Design for Need", a symposium exhibition to be held in London will examine the social context of design. The exhibition will at the Royal College of Art, Kensington Gore, London, SW7, from 8-30.

* * *

A conference on art criticism will held at the AIR Gallery, 6 Shaftesbury Avenue, London W1, from April 23-24. Applications tickets from Brandon Taylor, Winchester School of Art, Park Winchester, Hants.

* * *

"Doing Photography", an exhibition of the work of the Young Photographers Group in Blackfriars to be held at the Half Moon Gallery, 27 Alie London E1, until April 27.

* * *

The annual conference of the Ontory Society will be held at the Manchester Polytechnic Administration Centre, Lower Ormond Street, Saints, Manchester, from April 1. Fee: £17.50. Details from: G. Hanna, Director, Manchester Sci Manchester Polytechnic, Hilton Street, Manchester.

* * *

The seventh annual Willis Jackson Lecture of the British Association Commercial and Industrial Education will be held on April 21 at the in the Henry Jarvis Hall, Royal Institute of British Architects, 66 Portland Place, London, W1. The lecture be delivered by Baroness Seear, in personnel management, London School of Economics. Applications tickets from: The Secretary, BACIE, 16 Park Crescent, London W1B

* * *

Iranian Architecture, an exhibition be held at the Concourse Gallery, 35 Marylebone Road, Baker Street, London, W1, from April 5-May 1. The exhibition shows the development of Islamic architecture in Iran. It consists of approximately 150 photographs by Anthony Hutt and has been arranged in association with the "World of Islam" Festival.

* * *

"Complete Assessment", a conference on profile assessment in schools to be held at Slough College of Higher Education on April 12. Plans for profile assessment for various types and levels of science courses and prepared reports for the final plenary session will be discussed. Fee: £6.00. Details from Mr N. A. J. Luff, Slough College of Higher Education, Wellington Street, Slough, Bucks.

* * *

A seminar on "Social Research and Policy Making in Government" will be held from April 29-30 at the School for Advanced Urban Studies, University of Bristol, Rodney Lodge, Grange Road, Bristol 8EA. The seminar focuses on social research and will concern itself with the role of the social scientist in government and the relationship between the research and the policy maker. Details from Randall Smith at the school. Fee £40.00.

* * *

A national conference on "HND courses in Engineering in the 1980s Era" will be held from April 22-23 at Lanchester Polytechnic, Priory Street, Coventry. The conference will review existing HND courses and the future after the Formation of the Technician Education Council. Further information from: Dr D. Merritt, Lanchester Polytechnic. Fee: £17.00.

* * *

The Royal Society of Health's Congress will be held at the Congress Theatre, Winter Garden, Devonshire Park, Eastbourne from April 23-28. Lectures on alcoholic illness, sterilization, vandalism, and violence will be included in the programme. Fee: Members £32.40; non-members £37.80. Details: Miss P. T. Morrow, Head of Conference Department, The Royal Society of Health, 13 Grosvenor Place, London SW1.

Noticeboard is compiled by Myrna Monsurate and Patricia Santinelli

Singer who 'plucks a human universal'

David Martin talks to Janet Baker about her career as a lieder and opera singer

Dame Clara Butt, Dame Eva Turner, Dame Janet Baker: the progression is instructive. The first suggests a large deliberation, the second a larger-than-life expansiveness. The third is altogether more trim, more a person less a personage or a personality. As Janet Baker put it to me "I feel I am well adjusted psychologically and physically".

There is tragically, one missing name, Kathleen Ferrier. Janet Baker won the Kathleen Ferrier prize some twenty years ago, and it is the line begun by Ferrier that she continues to represent.

The world of singers alters, certainly since the war, markedly in the last decade. You cannot get by in opera now without musicianship. The time of the singing of birds is gone and the voice of the musician is heard in the land.

Opera singers of the old school could be ruthless exploiters, of men, music and melismata. Too many of them were all flounce, grande dame and ill temperament. To read Tetrazzini's *My Life of Song* or Elena Gerhardt's autobiography is to confront a creature intermittently intolerable.

The repertory alters too. Even writers in *The Oxford Companion to Music* knew works only by name which we know now in the musical flesh. The now professionalism works by partnerships which include the musicologist. The small opera group or opera house offers singers more opportunities and provides more varied offerings.

A decade ago the idea of Janet Baker on TV for a performance of *Il ritorno d'Ulisse in patria* ranked as piensing fantasy. Now two million stay up past midnight to watch her. Das Land mit Musik. In this sphere at least and at last, it is our turn.

Not long ago, Janet Baker's career would have been constricted by the romantic repertory and its conventions. Singers in her particular mezzo range were maids, grandmothers and ancient nurses, always Cherubs or someone else's Desdemona, never prima donna assoluta. The recovery of the Baroque has altered that.

Problems remain of course. Janet Baker's recent role as Vitellia in *La Clemenza di Tito* was written for sam ondy equally at ease at low C, which she is, and at B over two octaves above. Yet her *Vitellia* is a triumph. In one critic's view "The repertoire of nuance now at the command of this supreme artist is of a richness, and variety that defy description".

Two things are paramount in her performances. There is a vocal clarity and immense breath control, all the more remarkable in a *mezzo*. Then there is a dramatic and varied intensity in recitative or open colloquy with the audience that makes her ideal as Penelope, Diana, Dido, Maria Stuarda, Lucretia.

She does not scoop or slide: at the most she indulges an emotive moving into a climactic note. Part of her virtuosity springs from a previous wide experience of forms other than opera.

She believes that you should tackle opera once you have laid down the varied techniques in other forms. Traditionally, opera singers have proceeded in the opposite direction, from opera to lieder.

I asked her if she had a special affinity for the tragic role, and—scheming Vitellia apart—for the "good" role. Its true she does identify with a Penelope very strongly, but she can play wicked too and enjoys comedy, as for instance Strauss's *Ariadne*.

Der Rosenkavalier is "too boring for much of the time" to be really satisfying. A lot of Verdi and Puccini does not suit her vocal equipment.

She likes the complex, richly varied expressiveness of the Baroque. In Cavalli's *La Calisto*, for example, she performs the incredible feat of simultaneously characterizing Diana, and Jove in the guise of Diana.

Clearly she likes music which matches her own depth and intensity. In the case of *Maria Stuarda*, however, she takes a style which lends itself to trivialization and melodrama and gives it the dimensions of tragedy. What otherwise seems a mere cantilevering tune is used to chasten and subdue.

With most other singers you admire the equipment or the prowess, but with Janet Baker you are engaged by eloquent mouldings and a cumulative articulation of gesture, emphasis and meaning. One moment there is intimate and warm vocal ecstasy, and the next a desolate plaint from which all hope has been evacuated.

Janet Baker has extended the repertory in chanson, lieder, art song and the chamber cantata, as well as in opera. She taps the immense reservoir of unused music from 1600-1750. She turns Alessandro Scarlatti's last work *Salve Regina* into a miracle of luminous petition.

Or take her treatment of Purcell's "Man, lost man" and of Handel's tremendous 1707 cantata *Lucrezia*, which Raymond Leppard found for her. Very few singers know how to sing Purcell and even fewer are capable of coping with Handel. But she knows exactly where the tensions of such music are, what the internal relation of energies and shapes has to be.

In *Lucrezia* she builds a whole spacious interior of marvellously engineered sound. When she sings the concluding arioso you recognize one of the great moments in music: an *"O altitudo"* as Sir Thomas Browne would say.

I mentioned *Ariadnne* to her. "I don't like the old religious Handel. Really he is a marvellous human and dramatic composer, full of superb characterization." Even her Schubert is slightly out of the way. She has a massive, nostalgic, yearning songs like "Die Götter Griechenlands" or the huge soaring flights of "Auflösung".

Just how out of the way her repertoire can be was demonstrated when I tried to locate the delicate evocation of Venice in Schubert's "Der Gondelfahrer". Breitkopf and Härtel told me it did not exist. When pressed they claimed it was written for male voice chorus, and all stocks had been destroyed in the war.

On being informed the war was over and that Miss Baker was not a male voice chorus, they told me to "go to the BBC or ring Miss Baker yourself". The BBC was cooperative and I had the lonely library copy photographed, only to discover later that it was back to front.

Arthur Bliss was right when he said Janet Baker has a special power to move people. She plucks at a human universal. She reads widely in philosophy, lung for example, "I have to read in order to sing."

When audiences recognize is an archetypal situation and sensibility: Dido cursing and loving her departing Aeneas in *Les Trojens* is the perfect exemplar.

She draws on a deep well of inner security which enables her to be totally at risk. The risk is childlike and entirely mature: the upsetting potential loss of the child, with no protective scepticisms and withdrawals, and the actual tragic loss of the adult. Her songs are of innocence and experience. Mahler's "Kindertotenlieder" lies close to experience, to innocence and loss.

"I am sure . . . I feel very strongly . . . that's *right* . . . I follow my musical instinct. People have a right to expect my own interpretation. To be a *real* interpreter is to be utterly committed to the composer and remove every trace of self.

"The composer is what matters. You are for a moment and Mozart is for ever. The marks on this paper are somehow raise's experience. The most sublime achievements of humanity. There's a great gulf fixed between you and the creator.

"You are to represent at a moment in time, totally, that other moment which was his. Its on act of uncovering, lying fully there already in the squiggles of the score. You have to unclothe him, make he from God or outer space or whatever you want to call it.

"Some people see it as re-creation but you must see yourself at the service of the composer and the people in front of you. To be a singer can lead you a long way away, and you must constantly remember what and who you are. You have to control yourself even as you research the ordinary loving friendliness of an audience. What comes from them is just love.

"You have power. You create a kind of possession which must be channelled very carefully. You are perhaps just a creature of fashion. I look after my instrument but I don't know if I will be singing when I am 50. Now is the time to confront that, not then.

Dame Janet Baker

"Home matters to me. When I go away I constantly remember it. My husband has the same background. I won't do opera abroad because I have to be away too long. When I first thought of going to London I counted the cost and it was very high.

"Everybody has to find their true North. When I went to the Palace last week I read in Romans about the diversity of gifts. Everybody has something unique and special. I don't know how to make people believe this.

"My mother had acting gifts which didn't have a chance to come out. My father sang in the church choir. That was my first experience of music, feeling something in a hymn or an anthem. Bach and Handel."

That is part of true North for Janet Baker. At the same time she reaches out with deep affective intensity to people who nurture her musically. She has no Svengali, as so many singers do, but grows in the company of people like Colin Davis, George Szell, Dietrich Fischer-Dieskau, and Benjamin Britten.

Contingency, providence, the inward law of your being which must be obeyed. "There are some things which *must* be said." And sung.

The author is professor of sociology at London School of Economics.

Time for a reappraisal of sandwich courses?

Students on both "thin" and "thick" sandwiches over a range of subjects appear to begin their courses expecting a great deal from industrial training (presumably based on the presentation in college prospectuses and elsewhere), but, with experience, they tend to become noticeably less enthusiastic.

This is not, however, an undifferentiated reaction. Changing attitudes tend to be affected by factors such as the type of work involved, who the students are working with, and what scope there is for independent action.

Also, while students tend to rate industrial training highly as an opportunity for social learning in the broad sense, and as a learning haphazard growth, they burst into prominence in the 1950s as the than technical colleges competed for status via the National Council for Technological Awards, and its diploma in technology.

Any attempt to evaluate the impact of sandwich courses must take account of what it was they were intended to achieve. Their advantages were for a long time taken as self-evident. It was assumed by their protagonists that students could not fail to benefit in some way from what Sir Peter Venables described as "walking the wards of industry".

In fact, it was only in 1964, just before it gave way to the Council for National Academic Awards that the NCTA attempted to make the objectives explicit.

More recently, the purposes of courses and curricula of all kinds has become a favourite field of inquiry, and there have been several other *post-hoc* attempts to set out the objectives of sandwich courses in detail.

Essentially these claim that, through the integration of theory and practice, learning of various kinds is promoted, the students are helped towards careers, and their personal development is assisted.

Of the various groups with a particular interest in sandwich courses, the students' reactions have perhaps been examined the most carefully, and a surprisingly consistent pattern has emerged.

"Integration" is the main justification for alternating the periods of work and study. It is the basis of the first—perhaps dual—objective of the NCTA for sandwich courses, and it is yearly reiterated in the prospectuses of the technological universities and polytechnics.

Indeed, it is now becoming fashionable to talk of integrated courses rather than sandwich courses. Yet the idea of integration in this context is not an easy one.

At one level it implies that the work and study periods are somehow administratively brought together into a composite course, but it is not so clear what it is supposed to mean in terms of educational experience. At the very least, however, it carries the implication that the two parts are in some way inter-related and mutually enhancing.

This is what many students, people in industry and academic staff seem to doubt. Many staff who accept that sandwich courses are not fully integrated at the present time feel that the situation can be improved by better administrative arrangements.

In particular, they tend to place their hopes on improving the supervision procedures and assessing industrial periods for examination purposes.

But the problem may be more fundamental. Educational institutions and industry are different types of organization, holding different values and pursuing different goals. As Jahoda has pointed out, they may be so different as to make it almost impossible to embrace sandwich courses within one controlling system.

The technological universities seem to have tacitly conceded that the degree of relationship is less than might have been hoped. Increasingly, they are tending to run full-time and sandwich courses concurrently, with students from the two types of course side-by-side in the same classes.

If the content of the academic periods depended on, or was appreciably affected by, integrated industrial experience, this would hardly be possible.

If we now turn to other aspects of sandwich courses, we find that two important claims are firstly that they facilitate career choice, and secondly that they contribute to the student's development as a mature person.

Studies of career choice do show that some students appear to become clearer about the careers they want to follow and proportionately more sandwich course graduates than conventional graduates enter industry.

The other side of the coin, however, is that some students become less sure and less satisfied. For it is almost inevitable that in experimenting with possible careers as undergraduates, some students will realize that they have made a mistake, and their occupationally-oriented courses will become largely irrelevant.

As for personal development, experiences in industry appear to provide students with a broader framework within which to learn about themselves and this is reflected in the reappraisals which they make.

After industrial training, students appear to attach less importance to academic values and—depending on one's point of view—this can be seen either as part of the development of a more realistic and less extreme view of life or, alternatively, as militating against some of the things that higher education is trying to achieve.

One possible indicator of the merits of sandwich courses is the extent to which they have been taken up outside the influence of the NCTA or CNAA. But just as extrinsic factors may have contributed to their growth in the colleges of advanced technology and the polytechnics, weight of tradition may have hampered their spread elsewhere. For some reason the impact of the sandwich system on the older established, and even the newer, universities has been almost negligible.

Ironically, rather than sandwich courses spreading beyond their original loci, the trend has been—again not wholly for educational reasons—for the technological universities to run full-time courses concurrently with sandwich courses.

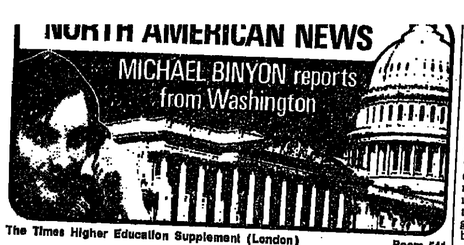
In the light of such evidence sandwich courses have perhaps been something of a disappointment. The chief reason for this is probably the generally acknowledged failure to bring the academic and industry parts into satisfactory relationship.

The elevation of the sandwich pattern to an educational principle of general applicability, however, is probably going too far. And we must ask whether the benefits of sandwich courses could be obtained more conveniently and economically in other ways, for example by pre- or post-graduation or vacation experience.

Now that the sandwich system can be considered more dispassionately than in the days when it was supported with an almost apostolic fervour, perhaps the various bodies and institutions which are interest in this type of education should examine it again.

Alan Smithers

The author is senior lecturer in research in education at Bradford University, and author of Sandwich courses: an integrated education?, *published this week by NFER at £3.75.*



The Times Higher Education Supplement (London) Room 541
Tel. 202 6386785 National Press Building
Washington D.C.

Divinity schools 'try to be all things to all people'

America's five leading university divinity schools, which have dominated theological scholarship in the country for years, have been strongly criticized in a recent report for abandoning traditional Christian scholarship in an effort to become all things to all people.

The "Big Five" are the divinity schools at Harvard, Yale, Chicago, Vanderbilt, and New York's Union Theological Seminary. Together with the Graduate Theological Union at Berkeley and the Theology Department at Notre Dame, these secular, non-denominational academic departments have traditionally been in the van of theological studies and have trained most of the country's leading churchmen, particularly in the Protestant churches.

The report commissioned by the Rockefeller Foundation and drawn up by Professor George Lindbeck from the Divinity School at Yale, is the first critical examination of these schools ever made, and has caused considerable controversy.

Professor Lindbeck is primarily concerned with theological education "in the sense of the academically and intellectually responsible transmission and development of particular religious heritages." And it is this "particularism" which he says is now lacking in those schools.

They have tended to interpret their functions more and more broadly, "simultaneously advertising academic quality, practical training, personal religious searching and self-fulfilment, revolutionary potential, conservative value, ecumenical outreach and cultural breadth."

This has not been in their best interests: ephemeral interests have been institutionalized, he says, causing over-expansion, dispersion of energies and duplicated programmes.

Professor Lindbeck says these institutions are now better integrated into their universities than before, and their academic status has risen.

"On the other hand, the gap between them and the churches has widened, and whatever intellectual responsibility or rationality they may communicate is less useful to the religious communities as the bearers of historic heritages."

The danger of a "generic" approach to theology, as he sees it, is that it would provoke a "fundamentalist" reaction among Protestants, Catholics and Jews anxious to maintain their religious identities. This would polarize theological education. "Church members would view the seminaries, including the denominational ones, as subversive and would either withdraw support or strive to reassert ecclesiastical control and to interfere with scholarship."

Professor Lindbeck's report makes three general suggestions. First, the schools should be academic, not occupational. This does not mean that they should eliminate pastoral training altogether, but they should capitalize on the strengths provided by their university connexions.

Secondly, theological education should be "self-consciously particularistic", concentrating on developing competence in specific heritages. The student should also study the generic features of all religions, but "in such a way as to contribute rather than distract from his main task".

Thirdly, the education should be pluralistic, embracing not only mainline Protestantism but Catholicism, Eastern Orthodoxy, Judaism and any eastern or western religious movement which has a significant institutional presence in the American mainstream.

Professor Lindbeck goes on to consider the present disarray in the churches: the plummeting of clerical morale, a drop in vocations, and the effort to adapt churches to the "ceaseless onrush of new social developments".

He says the time is ripe for renewed concern for the historic heritages, "not in any reactionary sense, but in order to reappropriate them in new and vital forms". He adds: "Perhaps careful exegesis of biblical texts and sympathetically mainstaking reinterpretations of traditional patterns of belief and behaviour are needed for solid theological and religious renewal."

The reaction to the report from the big five divinity schools has been far from enthusiastic. The University of Chicago, for example, says it has always combined the triple function of vocational training, theological scholarship and general religious studies, and this has been misunderstood by the report. The Divinity School sees no need to go back to a more traditionalist teaching of Christian theology. The Associate Dean, Martin Marty, thought Professor Lindbeck "a little too mournful about the shattering of the stained-glass windows of the suburban churches of the 1950s".

Summer courses for elderly

A string of what can best be called youth hostels for old people is being set up in New England this summer by the University of New Hampshire.

Some 20 "elderhostels" will offer residential courses for retired people, who will live in halls of residence, eat in community dining rooms and take part in short courses specially designed for the elderly, as well as more adventurous courses such as canoeing and car mechanics.

Last year more than 300 people, ranging in age from 58 to 91, took part in a pilot "elderhostel" programme at the University of New Hampshire and four other campuses in the state. This year some 2,600 people are expected to take part.

The aim, a spokesman for the university said, is to make retired people feel they are still of value and importance to society as an aware, involved group of citizens.

Last year Government, money and private charitable trust funds paid for the one-week courses, and those taking part had to pay only a $56 fee. The organizers, the New England Gerontology Centre, a branch of the New England Centre for Continuing Education, hope to repeat that arrangement this time.

One of the most popular courses last year was oral history, where the old people were taught techniques of interviewing their peers and recording historical events as related by fellow participants.

One topic, for example, was the Great Depression, and the groups recounted their own memories of this period. Another was the Labour movement in which several of the retired people had been active.

Higher fees 'the way to independence'

Tuition fees at all universities in Ontario should rise to the point where they cover about 25-30 per cent of total costs, the Ontario Economic Council recommends in a recently published report. Only in this way will universities gain greater financial independence—the best form of protection from unwarranted government interference, the council believes.

Colleges should be allowed to set their fees at whatever level they choose. But at the same time the grant procedure would have to be changed, so that higher fee revenue did not automatically lead to an equal fall in grant revenue. More money would have to be made available for students aid, and Ontario should give grants to all post-secondary students on the basis of a parental means test.

Underlying these proposals is the council's belief that universities now depend too much on government funds, and this brings the danger of direct government administration of universities.

The council also recommends a switch from the policy of supporting institutions through direct grants to one of supporting students through financial help because, it says, the private—as opposed to the public—benefits of education increase as one moves up the instructional ladder. The proportion of costs borne by students should therefore be higher at higher levels; at the moment students' costs in post-secondary—especially graduate and professional — programmes are too low.

There are two immediate difficulties. The first is that this would make things more difficult for students from low income families. The council thinks this could be solved by a revision of the grant system.

The second is that universities have other roles in society: Research, social critics, repositories of knowledge—and there is no reason why students should pay for these, as the benefits are largely public. The council admits it is difficult to separate the costs of instruction, research and other functions, but says as a rule the greater the extent to which a programme involves the production of some output other than teaching or to the lower the proportion of the total cost a student should bear.

Those changes will have to be introduced slowly, the council says, otherwise a sudden rise in fees would be disruptive. In reviewing the present system of weighting grants to universities, the council recommends that those programmes with high relative weights and high private benefits have their weights gradually reduced. For example, if net private benefits were considered high in medicine, the government grant for medical education would be reduced. Universities wishing to maintain the same level of revenue generated by medical students would thus be encouraged to raise relevant tuition fees.

The whole system of student aid would have to be changed. At the moment Ontario gives loans to students (federal money and supplementary provincial grants) for $800 is a loan. The rest is a non-repayable grant. Loans are interest-free until the first payment six months after graduation, and are then repayable at a low rate of interest. There are ceilings on the total amount of assistance.

The council wants grants on a means-test basis, with a standard amount set aside for tuition costs to ensure equity between students on low-cost courses (with low future earnings) and those of high cost ones.

An alternative scheme would be for all students to borrow funds irrespective of need. The repayment of loans, including the speed and total repaid, would be determined by a student's income after graduation—those earning more naturally paying back more.

$1m Japanese grant

One of Japan's major electrical companies—Matsushita Electric—has made a grant of $1m to the Massachusetts Institute of Technology for the endowment of a chair in electrical engineering, it was announced last week.

Community colleges fa[illegible] cutbacks and closures

The doors of America's 1,200 two-year community colleges are slowly closing as states begin to cut back their support and place ceilings on enrolment.

This warning was given last week at the annual meeting of the Association of Junior and Community Colleges. The association represents one of the country's fastest-growing and least reported sectors of higher education.

Community colleges now enrol more than four million students—over half of them part-time—and have increasingly become the route to educational qualification for the disadvantaged, workers, mature and part-time students, and those developing new skills in mid-career.

Traditionally the colleges have been non-selective with low tuition fees serving local communities.

But in the past few years things have begun to change as financial pressures are forcing States to examine their priorities at the expense of community colleges.

"We acknowledge the problems of finance in our present economy", the association said in a resolution. "But we cannot support solutions that simply propose a return to past priorities. Society's needs have changed, especially with regard to preparation for work, retraining and retirement."

It called on State legislatures to assess new community education needs. Adults and old people had increased the demand for educational services in many places, and community colleges had responded. But there was a danger that gains made in extending educational opportunity might now be lost in the name of economy.

The place of adult students in colleges was now being threatened, the association reported. In one state governor said colleges were offering too many "frills" and things as consumer education should be cut back. They should stick to their traditional role, he said. Vocational education and education for students who could not get to college anywhere else.

In California, which has by the most extensive and developed system of community colleges, legislature has limited expenditure to 5 per cent, colleges in Florida had to turn away students for the first time because of a ceiling.

At the same time the demand for places in these colleges is higher than in any other sector of American higher education: College enrolment is growing at the rate of 11 per cent a year.

They have developed many more experimental and innovative teaching methods and curricula. Blacks in particular have taken to them because of their less formal approach. Many Blacks attend universities graduated from community colleges.

As total student enrolments decline in proportion to the falling birthrate, it is the community colleges, last on the scene, which are probably the most vulnerable. They are anxious not to be judged on the same basis as traditional institutions, and are trying to emphasize their distinctive role. But many of their plans are falling on deaf ears in State legislatures in these cash-pressed times.

Banks quit student loan scheme

Two of California's largest banks have pulled out of the student loan scheme, and several others have announced they will sharply cut down the funds available for students.

The move has caused considerable concern in California as there may not be enough money available now to finance next year's university and college intakes.

The two banks—United California and Security Pacific—will not make any more loans, although they will honour those now made. The main reason is that the loan scheme, basic to the financing of American higher education, is no longer commercially viable for profit-making organizations.

The low interest rates on the loans, the exceptionally high rate of default on repayments and the difficulty of claiming back money from the Government to cover defaults have got to such a point that banks all over America are urging the Government to change the scheme.

A spokesman for Security Pacific said last week that they now had 30,000 loans on their books, worth some $30m. But they also had claims against 1,086 defaulting students who were not paying back their loans.

Under the scheme the Government will reimburse lenders if students go bankrupt or otherwise default. But it often takes many months before claims are dealt with. They have first to try to get the money from the students themselves and only then can they refer cases to Washington.

The Government is going to introduce a Bill to speed things up, allowing claims to be dealt with by the 10 regional offices of the guaranteed Student Loan Programme. This should allow claims to be processed in about 40 days.

The Bill, which will probably go to Congress in June, will also raise the rate of interest from 7 per cent to 8 per cent, and allow the Government to top this up with another 4 per cent, the maximum of 10 per cent interest is not commercially attractive as other ordinary bank loans.

Enormous pressure will now be put on Bankamerica, one of the country's largest banks, which is heavily involved in the scheme. However, they have just announced a 20 per cent cut in funds for next year.

History—a thing of the past?

While America indulges in an orgy of bicentennial history teaching of history is in a great crisis. Fewer and fewer are studying it and in some[illegible] history teachers no longer[illegible] training in the subject. Every[illegible] being incorporated into social studies courses, or squeezed out of the syllabus by consumer education, urban and ethnic studies.

The crisis has been gathering momentum for some time, but[illegible] by the recent rush into vocational education. Historians are profoundly worried by a growing anti-historical mood. A report recently published by the Organization of American Historians focuses their worst fears.

It shows that the decline is marked in schools as in college. Only in the south is history emphasized as an important school subject, and even there the study is disappearing from the syllabus in the last few years of high school.

The report is pessimistic about history in higher education: in nearly every state it found the enrolments reached a peak around 1969, and then fell sharply, although total student numbers in higher education continued to rise.

Two causes for the decline are identified: the dropping of history from the list of required subjects and the drop in job opportunities for historians.

The report urges historians to try harder to make their courses more attractive, especially at a time when students doubted the usefulness of the subject.

Foiled again

The University of Oregon is claiming to be the first university in the world to introduce the ancient Indian art of Silambam fencing as an undergraduate sport. Dr. Manoul Raj, an Indian champion 20 years ago, now doing a doctoral course in education at Oregon, founded an International Association of Silambam fencing on the campus in December.

Silambam is a Tamil word for the swishing sound made when a cane staff, once a weapon of war, is brandished vigorously against another in the duelling process. Students taking the sport can earn credit in their PE course.

Australia

Humanities graduates in demand

from John Kirkaldy

SYDNEY

Another university myth of the affluent 1960s is under strong attack in Australian academic circles. Arts degrees, seen by many as little help in the competitive employment stakes, are now revealed as providing not only a greater chance of employment but also a higher level of job satisfaction.

A survey conducted by the Graduate Careers Council of Australia of all students who graduated from Australian universities in 1974 showed that humanities graduates were in higher demand than more specialized degrees. A major exemption to this was in the field of medicine and associated careers.

Professor John Willet, vice-chancellor of Griffith University in Brisbane, revealed in *The Australian* newspaper his own breakdown of the figures from the Graduate Careers Council. The percentages are of students who were unemployed last year and graduated in 1974.

Those below the average national unemployment rates were: medicine (nil unemployment), dentistry (2.2 per cent), education (2.8 per cent), veterinary science (1.8 per cent), economics and commerce (2.7 per cent), humanities and arts (3.3 per cent), mathematics (4.4 per cent) and physical science (4.7 per cent).

Those above the national unemployment rates were: social work (5.6 per cent), behavioural sciences (6 per cent), law (6.1 per cent), biological sciences (6.9 per cent), pharmacy (7.3 per cent), agricultural science (10.1 per cent), applied science (14.1 per cent), engineering (14.5 per cent) and para-medical (28.6 per cent).

According to Professor Willet, the trend towards liberal arts graduates has been apparent since 1973. He expressed surprise at how slow the community had been to realize this: "The myth of the unemployed generalists takes time to go", he commented.

"As the economy comes under pressure the first thing firms stop recruiting is specialists. As they stop producing new products they stop taking on new technologists but they still use generalists of some sort or other", he said.

Perhaps even more controversial is Professor Willet's analysis of job satisfaction and the arts graduate. He claims that "generalists not only are more employable but they are also employed in more satisfying jobs".

His claims are based on the breakdown of the figures of graduates who a year after graduation are now employed in a different job from the one they had first taken. (Professor Willet does concede that these figures can only be taken as "a crude measure"). Again a big exception must be made for medicine and associated sciences.

Highest job satisfaction figures were as follows: medicine (1.3 per cent), para-medicine (3.8 per cent), mathematics (4.0 per cent), pharmacy (4.8 per cent), dentistry (5.4 per cent), humanities (5.7 per cent), biological sciences (5.8 per cent), and physical sciences (6.1 per cent).

Lowest job satisfaction figures were as follows: education (9.3 per cent), applied science (10.6 per cent), architecture (10.7 per cent), agricultural science (10.9 per cent), economics and commerce (11.6 per cent), law (12.0 per cent) and engineering (13.4 per cent).

Professor Willet claims that these figures contain two lessons for Australian universities. First, student courses should be more generalized: "High levels of specialization in a changing world are not necessarily good".

Second, courses need to be orientated more towards the problems of the outside world. "The non-specialists should make sure that their minds are trained to do some thinking and not to over-specialize in the humanities."

Griffith University, which opened last year, is Australia's newest university and has already established itself as a page setter. The university is divided into four schools: Australian environmental studies, modern Asian studies, humanities and science. It has a large intake of mature students.

Professor Willet would like also to see more post first-degree courses.

China

Succession battle spills over into education and starts mass debate

by John Cleverley

The battle for the succession in China, with the spectacular deposition of Teng Hsiao-ping, has major implications for his supporters working in education. Already a small group, headed by Chou Jung-hsin, Minister of Education, has been singled out for its bourgeois line. Early last year, the newly appointed Minister compiled a series of reports critical of educational developments since the Cultural Revolution. His themes were taken up by Liu Ping, deputy Party secretary at Peking's technological university, Tsinghua, and by some staff from Peking. In August and October Liu Ping took his cause to Mao, who referred the letters to the Tsinghua faculty and students. Mass debate began in November when a lead article attacking the critics of revolutionary education appeared in *Red Flag*.

Liu Ping specifically attacked the quality of university education, alleging that recent graduates were "not even capable of reading a book". He called for the limitation or ending of:

the almost universal practice of sending secondary school graduates to the countryside for two or more years before tertiary study;

selection to university on non-academic criteria;

the weight given to practical experience in courses;

moves to shorten courses;

non-expert participation in university government;

the dispersal of students to factories and communes after graduation.

Standing apart in China has typically brought fame or relegation. The present critics are being put down. In senior government and university circles they are attacked by name, somewhat mildly, for "implying" that the Maoist line is incorrect. They are said to "hold some wrong ideas", but that is "not a very serious thing".

However, the grass roots response has been more savage. The thinking of "certain people" represents "a deep poison" whose source is "the rightist deviationist line" of that "preposterous snake Liu Shao-chi". It seeks to lure the young "up the small pagoda stairs to the bourgeois spiritual aristocracy".

One official reaction is to argue that quality in education can be defined in two ways. The "bourgeois quality" of the critics with its connotation of how many books read, how much knowledge learnt, how many subjects taken, how many examination marks gained; and genuine "proletarian quality", with its concern for the moral, physical and intellectual, for solving problems analytically, and for developing socialist consciousness and culture.

A senior educator told me privately that "the question of quality is very important, and we must pay attention". Nevertheless official spokesmen insist that "exact facts" have "proven" that education today is "better than before". Here it is common to cite the numbers of new production devices invented by university students, and their willingness to volunteer for country service.

Late in 1975, for example, an open letter from 1,804 Tsinghua graduates listed 217 scientific projects taken up, and a common wish to serve in remote parts of China. Their marching footsteps, they vowed, would "shatter imperialist, revisionist and reactionaries' dreams to change the colour of our generation".

In the event, the overwhelming majority of Tsinghua graduates was moved from Peking, around 300 going to frontier regions. It is said that local bureaucrats were not unhappy to see the young Maoist radicals dispersed.

The debate is diligently orchestrated by the Central Committee of the Party whose stand in defence of the educational revolution is clearly popular. Teachers and students openly attack the critics, although one recent character poster suggested that the Minister of Education was not a good cadre led astray by his officials. (The contents of the posters at Tsinghua are relayed to the Ministry daily.) In the circumstances it seems unlikely that the Minister will get much overt support from within his department.

Issues in the debate are widely discussed in places like May 7 cadre schools, in neighbourhood committees, in factories where workers are visiting universities for briefings, and in schools. Secondary school pupils are leaving posters behind when they visit factories and communes; and primary school pupils listen to the basic arguments in politics lessons.

The spread of simple argument has the effect of pushing schools and universities further into "integration with society" experiments. It has also brought out latent anti-university sentiment the theme of a new two-hour film, *The Break*, completed in December, 1975, and playing to packed houses.

Dean with 'standards' seen as villain

Based on an actual incident at Kiangsi Province Communist Workers University, *The Break* tells of efforts by a director to found a branch school of the university in a wilderness on the "open door" policy. The lead is played by the popular Kuo Chen Ching, and the villains are a dean—all for "standards"—a bourgeois professor, and a rightist Party member working to close down the branch.

In one sequence the authorities decide to send the director around conventional universities. He remains unimpressed by officials who walk about under umbrellas, and students who vacate the paddy fields during harvesting to complete "paper theses", and who spurn country shoes made by their poor peasant mothers in favour of smart brogues. Intervention by Mao saves the branch, and the dean is re-educated, and the daughter of the bourgeois professor rejects the offer of a place in the main university. The response by the audience left no doubt about its sympathies.

The universities' concern at the bad press they are getting was evident in the decision of the Chiao Tung University, Sian, to mention the debate in a telegram to the State Council expressing condolences at the death of Chou En Lai. The university had a special relationship with the Premier for it was he who directed that it move to Sian from Shanghai after finding time to discuss the move with the staff.

Other attempts to counter public criticism have involved publication of lengthy statements by the universities on their achievements. On December 14, Peking listed six "profound changes", and Tsinghua followed on January 17 with 10. They covered the strengthening of working class leadership, increasing political knowledge, remoulding intellectuals, advances in "open door" teaching, the combination of teaching with production and research, running branch schools, helping factory universities and correspondence work. The universities are also making much of advances in glamour areas like the oil industry and medical research.

Even so, the debate has unsettled the universities internally. Not least it has strengthened the workers' propaganda teams which attached themselves during the Cultural Revolution and whose members serve on policy committees. Recently, they were the target of the critics who argued that universities "should be run by laymen evident in science and engineering", and that the teams "have not solved any problems at all. They just pay lip service".

Now the worker groups are presenting themselves as the repositories of the line. The presence of the People's Liberation Army on the institutional scene where it has been in decline since the fall of Lin Piao has also been strengthened.

Institutional rivalries have emerged as well. Chinese universities today, with their shortened courses and practical sessions, are very much centres of teaching and applied learning, their pure research functions being increasingly usurped by the 30-odd research institutes. The latter take no students, and were comparatively untouched by the Cultural Revolution. The universities' response includes setting up third own institutes and criticizing research institutes for their "golden ways".

Lower levels like the July 21 Workers' Universities in the major factories and the Peasants' Universities of the communes have also lifted up. They run various two-year and short courses related to specific purposes like designing textile machinery or radio announcing. Their generally unqualified students see talk of quality as a weapon directed at them. They are aroused because they believe that their centres are the new wave of socialist higher education.

While administrators declare that the present orientation of education is correct, they freely admit shortcomings. These are not, however, seen to bolster the critics' case. The point is made that "we cannot cope with all the demands on the different fronts—there is a gap between what we can do and what the broad masses want". More specifically the shortcomings are:

how to master techniques in a shortened schooling period;

the conflict between study and labour demands;

the difficulty of making practical work fully educational;

a shortage of textbooks, especially in the work experience field;

the unwillingness of factories to take on a teaching role if this will slow production;

the burden put on peasants required "to integrate" young urban students with society;

the lack of any proper consolidation of experience since the Cultural Revolution.

Wall posters attacking Teng and the "revisionist line" in education.

Chairman Mao adorns Tsinghua University, Peking

Students keep to the classrooms

No doubt many university teachers would agree with the critics that academic standards before the Cultural Revolution were higher. They are not, however, in any position to make a case. As a group, they are regarded as likely backsliders on the revolution; and there is a belief that present deficiencies have much to do with them. A factory cadre asserted "if teachers studied harder and carried out the revolution, then the great debate would be solved". Those teachers inclined to support the critics must have felt themselves thwatened.

At the other pole, the students have failed to push their own radical ends hard. Since the Cultural Revolution, bureaucratic structures in the universities have steadily reasserted themselves; and some central authorities have disclaimed any influence on university policy.

It seems that the present study body, with its two or more years' work experience, is not the volatile element of the mid-sixties. A senior professor confided, "we keen them in their classrooms". At Tsinghua the character posters are in a special compound with a gate keeper; they are prepared in the afternoons and evenings with a minimum of interruption to study.

At the top, the debate is being received coolly. This containment reflects the prosaic mood of the country which seems set against internal shake-ups: 1976 begins the first year of a Five Year Plan, and the official policy is "unity and stability" (not forgetting the class war). During the mourning for Chou the *People's Daily* made conciliatory gestures towards the old intellectuals. Catching the atmosphere, the universities are speaking of "consolidation" and "step by step transformation".

And a senior official made the point about Chou Jung-hsin: "We must cure the patient, not kill him. But if the patient does not take the medicine, then it is not our fault." The question remains—what will be the ultimate strength of the dosage?

The author has just returned from a visit to Peking.

TIMES PAST THE TIMES

HIGHER EDUCATION SUPPLEMENT
New Printing House Square, London WC1X 8EZ. Telephone 01-837 1234

Straight talk and paradox

Lord Energlyn, professor of geology at Nottingham University, rightly called last week's *Hansard* report of the Lords' debate on the universities "a historic document". Although the upper house of Parliament contains a wealth of academic experience, it has not had a full-dress debate on the universities since the 1960s. This is a pity since the debate showed not only depth of knowledge of the universities' past and present, but also a willingness by the academic peers to confront the future and not to shirk pressing questions.

The elegance and force of contributions from men such as Lord Annan and Lord Eccles was matched by the experience of Lord Morris and Lord Robbins; science was well represented by Lords Todd and Zuckerman; Baroness Lee spoke on the Open University. From the political benches Lord Donaldson seemed to relish his temporary departure from his usual Northern Ireland brief and made a good spokesman for the Government; Lord Sandford for the Conservatives showed that they have been giving some interesting thought to revising Robbins for the 1970s.

Lord Crowther-Hunt, summing up for the Government, could take comfort in the fact that, at last, some of the questions he put during his time at the Department of Education are being answered. In spite of what Lord Annan called the defensive and anodyne statements of the Committee of Vice-Chancellors, the Lords' exercise in thinking aloud about the universities' future was the beginning of a genuine response.

Three threads wound their way through the debate. The first was caught by Lord Robbins, whose experience allowed him to make the point without tendentiousness: the universities are under pressure and the staff-student ratio is being squeezed, but it is not yet disastrous. Lord Robbins's calmness on this question was a healthy corrective to some of his more excitable junior colleagues in the universities. Interestingly, Sir Frederick Dainton probably shares Lord Robbins's view, for he said last weekend that in his own academic career the time when he had as many as 22 contact hours a week was his most productive. To repeat Lord Robbins's words: a greater teaching burden is to be deplored, but it will not be the end of the academic world in this country.

A second theme of the Lords' debate was Lord Annan's point that the Government did not want a justification of the status quo from the universities, which is all that bodies such as the Committee of Vice-Chancellors and Principals and the Association of University Teachers have offered. The Government wanted to know in concrete terms what universities could do to help Britain find its way out of economic decline.

The Lords' answer was really about which functions the university should serve. Lord Energlyn was quite clear on this. The universities as centres of scholastic excellence should be preserved as "crystalline nuclei". The other important functions, including the training of the men the country needed to expand its productivity, should be carried out by other institutions. Lord Todd argued that the universities' function was emphatically not to turn out men and women who could immediately play a full part in running a factory or research and development programme. Here, in these traditionalist conceptions of the university, was a clear answer to Lord Annan's question: it is not the universities' job to respond to economic decline; that must be done elsewhere.

A variant on this argument was Lord James's. At their best—on his definition of which he has strict ideas—virtually all the universities do not "relevant", because their students emerge with the power to think clearly and express themselves fluently.

In other words, Lord Annan's request for concrete details of the universities' response was rejected in favour of a looser, wider, description of numinous qualities of mind, cultivated in the university alone.

The third strand of the Lords' debate was more concrete. Speaker after speaker seized on the worries of Sir Frederick Dainton in his recent annual survey about the quality of university entrants from the schools. However, as Lord Eccles rather bitterly pointed out, the responsibility here lies as much with university indifference towards the schools. How many academics take a close interest in, say, the work of the examination board nominally based in their university? It is not enough merely to evince concern about the standard of university entrance—schools' examinations are based on much wider principles than simply preparing the few for higher education. Universities have a role to play in curriculum development at all levels, and it might be hoped that the doubts shown in the Lords' debate will issue in a much wider involvement of university teachers in the educational system as a whole.

Yet here is the paradox. The Lords at the end of their enlightened and stimulating debate were still undecided whether the universities should draw up the drawbridge and retreat behind their walls, preserving scholarship and the pursuit of fundamentals. The alternative, sketched briefly by Lord Annan and others, is the large-scale involvement of the universities in the whole process of education.

In this conception the universities ought to be responsive to economic need and "public responsibility" as defined by Lord Eccles and Lord Crowther-Hunt. But at least the Lords broached this issue—it may be hoped their forthright example of plain speaking will be followed by bodies like the CVCP. The universities need feel no shame in looking to the House of Lords for an example.

Problem package

from Dr A. G. Howson

Sir,—The problems of exchange controls and other administrative difficulties often lead continental institutions, when they issue invitations to lecturers, to ask them to purchase their own rail and air tickets "it being understood that such expenses will be reimbursed on arrival".

This would seem an eminently satisfactory method of working provided that the institution concerned fulfils its side of the bargain.

Unfortunately I have recently discovered that one can no longer rely on this. In March of last year I was invited to lead a team of four from England to participate in a seminar to be held in September, 1975, at the Institute of Mathematics, Rome University. The seminar was financed by the National Council for Research (CNR) in Rome.

So as to cut down on expenses, the form of its booked package tours to Venice which we had to pay in advance.

At the time of writing the University of Rome has still not reimbursed us; this despite continued efforts by our Italian colleagues and the fact that the CNR organ was received by the university over a year ago. Indeed, we are not the only sufferers, for the Italians who participated in the seminar have still to be paid their expenses.

Such occurrences can only damage cultural and scientific exchanges between countries. Although in my experience it is a unique incident, it would, nevertheless, seem prudent for any lecturer invited to Italy and, in particular, the University of Rome to insist that he is provided with travel tickets prior to his visit and that he is paid *per diem* expenses on arrival.

Not only will this benefit him but it will also ensure that his Italian colleagues are spared both embarrassment and also many hours of battling against a seemingly intractable bureaucratic machine.

Yours faithfully,
A. G. HOWSON,
Department of Mathematics,
Southampton University.

LETTERS TO THE EDITOR

Marxist explanations

from Dr David Hillel Ruben

Sir,—Although it would be a tedious and unrewarding task to reply to all the inaccuracies and innuendoes contained in Ivor Crewe's column (*THES*, April 2), I should like to comment on his penultimate paragraph, in which he speaks of the failure of Marxists to explain events in the Soviet Union, and the alleged near-absence of Marxists among Soviet specialists.

To describe the Essex University bookshop—which, among other bookstores, Mr Crewe presumably had in mind—as having a "large separate section reserved for Marxism" would be somewhat less than accurate, given the small number of potentially stocked shelves devoted to that purpose. But Mr Crewe cannot have looked very carefully even at what is on those few shelves, for otherwise he would have discovered copies of *Critique: A Journal of Soviet Studies and Socialist Theory*. *Critique's* principal, although not sole, aim is the development of an independent, *critical*, Marxist analysis of the Soviet Union and Eastern Europe. It has included in past issues articles, written from a Marxist perspective, on the Soviet working class, the economic reform movement in the USSR, the dissenting intellectuals, political change since Stalin, discussion of the "nature" of the regimes in the Soviet Union and Eastern Europe, as well as short, topical surveys on current economic and political conditions in various of those states and articles of historical interest on the factory committees, the left opposition, Bukharin, and the foreign policy of the Russian provisional government.

Far from being committed to a suffocating "orthodoxy" in the way Crewe alleges Marxists to be, *Critique* attempts to foster an open and critical discussion of the Soviet Union and Eastern Europe, and the problems their existence raises for Marxists. All that the articles in the journal have in common is that they are written from a Marxist point of view very broadly defined, and they are critical of what exists in the Eastern countries.

The article on the Soviet working class formed much of the basis for the article on Shelepin in *The Sunday Times* of March 30, 1975, and several of our articles have been reprinted in continental publications. *Critique* is generally recognized as being an important source of information and discussion for people interested in the Soviet Union.

The refutation of Mr Crewe's allegation of the near absence of Marxists among Soviet specialists can be seen in the list of scholars writing their articles, most of whom hold university and polytechnic posts, and the increasing number of Marxists among the staff of several institutes of Soviet Study in Britain. The advisory editorial board of *Critique*, which includes a British university lecturer in politics department, an ex-director of the CNRS in France, and the ex-director of a philosophy institute in Yugoslavia, also suggests that there is no such absence, either in Britain or abroad, of Marxists who attempt to understand and explain events in Eastern Europe in the USSR.

As an assiduous reader of *The THES* Mr Crewe may know something of our twice-yearly academic conferences, some of which have been reported in *The THES*. Speakers have included such "simpler disciples" of Marxism as Zhores Medvedev, Maurice Godelier, Pierre Naville, Georges Haupt, Ernest Mandel, and even (*horribile dictu*) Ralph Miliband himself.

Indeed, more generally, the claim that there is no Marxist explanation of the USSR displays an almost unbelievable ignorance of the debates that have raged within Marxist circles since the day of Trotsky and the Left Opposition.

Mr Crewe may not accept or agree with such explanations, but that is not what is at issue. To suggest that there is an absence of Marxists attempts at explanation simply ignores one of *the* most central questions that Marxists have faced and discussed and debated for the past 50 or so years.

Mr Crewe would do well to return to the "Marxist" shelves at the bookshops where, in addition to *Critique*, he will find a large number of books discussing just those problems whose absence he laments.

Yours faithfully,
DAVID HILLEL RUBEN,
Department of philosophy,
Essex University.

Uninvited guests

from Mr Tim Devlin

Sir,—The Department of Education and Science is obviously terrified of any more leaks appearing in your columns or any other section of the press.

Last Friday I was amazed to find that a press officer had been detailed to attend a meeting that I had arranged with a department official to discuss a new European University Institute in Florence.

She had a notebook in hand and said that it was my duty, by the general rule that press officers should attend all meetings between the press and officers and ministers of the department.

Not long ago, I invited Miss Joan Lestor out to lunch and I was told that I could not have lunch with a junior minister unless I also invited a press officer.

Luckily, Miss Lestor agreed to have lunch with me without a press officer being present.

The Education Correspondents Group has recently been very concerned at being forced to invite press officers to group lunches to accompany ministers. It is to wonder that the department has a reputation for secretive administration?

Yours sincerely,
TIM DEVLIN,
Education correspondent,
The Times.

Unpopular view

from Professor John Griffith

Sir,—You report Sir William Ashby as saying that "students were responsible for damaging political relations in the late 1960s and that by the time they had left the university the damage was done" (*THES*, April 2). Sir William Ashby may have had his own views on the troubles in Belfast, but I think it little fits his reputation for impartiality to make such a sweeping generalization about the troubles in the universities.

These were indeed "unpopular" and much "intolerance" was shown to them. Robin Blackburn, lecturer in sociology, expressed an unpopular view; and he was treated by Lord Robbins and others at LSE with complete intolerance.

Yours faithfully,
J. A. G. GRIFFITH,
Professor of law,
London School of Economics and Political Science.

Quality v quantity

from Professor K. R. Jennings

Sir,—I write with reference to a statement by Mr Peter Wilby in his article on Warwick University (*The THES*, March 26). He asserts that the Department of molecular sciences "lacks the strength in depth to mount large scale research projects". Since Mr Wilby did not discuss the matter with me, I cannot imagine how he came to make such a demonstrably false statement.

The department has a research school of over [illegible] research staff and postgraduate students working on a wide variety of problems in chemistry and biochemistry. This research is supported by grants from the SRC, industry and other statutory bodies.

The department houses a British Universities National Mass Spectrometry Centre [illegible] and several other expensive facilities [illegible] from all over the country and several countries in Europe have spent extended periods attached to various research groups there.

There is no simple correlation between the size of a department and the quality and diversity of its research work. Mr Wilby may have been misled by the view that the trouble to report [illegible] is a little more than [illegible].

Yours faithfully,
K. R. JENNINGS,
Professor of molecular sciences,
Warwick University,
Coventry.

Pay parity

from Dr J Sykes

Sir,—Mr Gunn (*THES*, March 19) in common with your other correspondents, erroneously concludes that the Sheffield AUT memorandum to the local MPs (*THES*, February 6) was to some extent a ploy by teachers in Polytechnics. This is not so. The aims of the document were:

(i) to correct some of the false impressions many MPs and others have regarding the universities, their staff and their role in higher education and the creation, present and future wealth of the nation;

(ii) to stress the economic and general importance of institutions of higher education in a city such as Sheffield;

(iii) to clarify the dissimilar roles of the universities and polytechnics in higher education as reflected by the qualifications and activities of their staff.

It is clear that the DES and some politicians misunderstand the respective contributions and distinctive roles of polytechnics and universities; for example those who speak glibly of "polyversities" without consultation with the unions concerned which some MPs have accepted and which are based on incorrect interpretations of available data: eg, the yearly unit costs figures for student universities (£1,500 in 1974) and polytechnics (£1,100) have led some to believe that the cost *per graduate* produced in polytechnics is less whereas it is much higher (£2,[illegible] vs. £1,500) and the smaller university figures includes medical, dental and veterinary graduates.

The Houghton analysis was similarly facile. Few in the universities least of all the AUT, questioned the parity of salaries and career prospects for those engaged in similar work to the universities for at least 50 per cent of their time. However, on average, not more than 50 per cent of students in polytechnics are reading for degrees (100 per cent in universities) and yet as Mr Gunn's article reveals, 100 per cent of the staff in polytechnics enjoy almost identical, if not actually better scales than those in universities.

The arbitration tribunal concluded that university salaries should be eight to 12 per cent higher than those in Polytechnics. This intention and a proper cost of living settlement, were denied university teachers by the DES prevarication before the White Paper last August.

A total of 13 per cent cost of living increases since October, 1974 leaves the university lecturer requiring more than Mr Gunn's sympathy. A table in our document showed that with the 1965 Index set arbitrarily at 100 then according to the Department of Employment, by 1975 the average index of weekly wages and earnings (all industries) was 290 whereas university salaries were *approximately* 200 and have now *slipped further*. This is the redistribution of which we speak.

Yours sincerely,
JOHN SYKES,
Association of University Teachers,
Sheffield University Local Association.

from Mr Peter Koch

Sir,—D. M. Gunn's article appropriately called for less antagonism between university and polytechnic teachers over their respective salaries. Apart from the six-monthly leapfrogging, the salary scales are not substantially different, yet already, alas, great scholarship is being applied, such as that by Professor Pittoway (*THES*, April 2), to magnify the differences.

The argument evidently is that with a starting salary of £3,[illegible] university teachers are disadvantaged by some £100 per annum which is magnified by subsequent differing increments. Nevertheless I cannot help but observe that the anomaly is trivial after reading advertisements for Royal Navy Instructor Officers who at 23 can command a salary equivalent to £6,246 per annum (taking the tax free gratuity into account).

Yours sincerely,
PETER KOCH,
Hon Sec, Lanchester Polytechnic Branch, AUT, Coventry.

Rom Harré discusses the 'political' basis of social psychology

When actions and words speak together

The blanket claim of "experimental" psychology to be scientific has recently become open to question. In the process, something of its political role has been revealed—a role which some would claim to be oppressive.

The questioning process, however, has not been accompanied by any clear idea of how this situation has come about—*how* a form of speech and writing, and a series of practices which are labelled "scientific" because they apparently employ certified scientific method, can be political activities. Nor has it been made clear just what sort of political activities they are.

This is partly due to the use of pre-established political and sociological categories in an attempt to clarify institutions, categories such as "class" which are just as problematic as the practices they purport to explain. And it is partly due to an unwillingness to allow explanatory categories to emerge from the practice itself.

There is always resistance to the alarming idea of self-intervention and self-reform as the centre of an explanatory process, in other words to the idea of giving priority to correcting personal practices the social equivalent of taking care of the pennies and finding the pounds have taken care of themselves. And there has been a corresponding unwillingness among sociologists to allow their "subjects" to speak for themselves.

Changes in the theories and methods of the social sciences are first likely to emerge in social psychology, concerned as it is with the relation of an individual to the social world. Recent revolutionary changes in social science, from ethnomethodology in micro-sociology to ethogenics in psychology, have sparked off a change in social psychology, with profound implications for the future of the discipline. The new perspective has made the source of the moral and political implications of psychosociology (micro-sociology and social psychology taken together) much more visible.

Different psychosociologies derive from opposite ends of a spectrum of ideas about how human social action is generated and controlled. At one end are the social actions we could call automatisms—as, for example, a smile generating a "warm" atmosphere in a social interaction, or non-verbal matters like head-nodding, eye-locking, and so on, bringing about turn-taking in conversation. And doubtless automatisms are best studied by experimental method, identifying independent and dependent variables, using controls, and perhaps even large-scale statistically-studied populations.

At the other end of the spectrum are those forms of control where a person is relatively autonomous in his action. Dieting is a typical example of an autonomous self-controlled action, in which one is free both of the immediate social environment and biological promptings, and controls one's actions by reference to a *regimen*.

It is far from clear that those kinds of social action which are typically autonomous can be studied by the same methodology as one studies automatisms. They can best be investigated by detailed analyses of individual cases, the prime research target being to reveal the structure of the actions and of their generative conditions.

By concentrating upon one or other of these extremes, and generalizing from it, psychology can emphasise human automatism or human autonomy. And by that emphasis, it can encourage the existence of one or the other prime mode of human functioning.

The most serious objection to generalizing the experimental method to the investigation of all forms of human action, quite apart from the technical problems of application, is that it leads inexorably to an emphasis on automatic functioning. This is a feature of the current practice of human *science* that adds a political dimension to psychology.

The hegemony of the experiment, which can be externally manipulated, has also been challenged by evidence of the degree to which human beings are "self-produced". People can and do make themselves and their friends and teachers, make each other.

J. Shotter, for example, has shown how much "self-making" is influenced by what people think they are, or think they ought to be. As he has demonstrated in his recent book *The Images of Man in Psychological Research* (Methuen, 1975), what people think they are is strongly influenced by what currently accepted authorities tell them they are.

To take two extreme cases: in the Middle Ages people struggled to fulfil a conception of themselves based upon what their theologians said they were, namely agents totally independent of their social and biological environments. In recent years we have had, particularly in educational psychology, the influences of the Skinnerians, who are interpreted as saying that people are passive and totally controlled by their environment. It is clear that each of these images represents an extreme generalization of one or other end of the spectrum of types of human control over action; the medieval idea that we are free to make ourselves anything we like contrasts with the Skinnerian idea that we are made, not by ourselves, but by our environment.

This feature of human *life*—that human beings try to make themselves what they are told they are—adds a moral dimension to psychology, for it makes an immediate difference to the available system of moral judgment which of those images people try to make themselves into.

It is also clear that there is a relation between this moral dimension and the political aspects of psychology as a human science. Those who emphasize automatisms at the expense of autonomies are, it has been said, using an oppressive mode of speech.

Since the methods developed for the scientific investigation of automatisms are quite unsuitable for the investigation of autonomous types of behaviour, acknowledging the existence of such kinds of action-control can lead to the idea that much of human psychological functioning lies outside the sphere of scientific investigation—a counsel of despair based upon an overly narrow conception of science.

Alternatively it can lead to attempts to develop an appropriate scientific methodology for those kinds of behaviour. Strenuous efforts have been made in recent years to develop such a methodology, and they have borne fruit in the blend of symbolic interactionism and linguistic analysis now called "ethogenics".

The ethogenic method emphasizes another moral and political aspect of human science. The source of the concepts upon which our sociopsychological investigation is based may be external, and the concepts imposed upon a form of life; or it may be based upon concepts already in use among the folk who live that life, concepts revealed in the ethogenic analysis of how those people explain themselves. According to the ethogenic methodology, both sorts of concepts are required, but the latter have priority.

The main idea behind ethogenics is simple enough: that the analysis of social life should be based upon the study of two kinds of human social performance: action, including the speech that advances the action, and commentary or accounts, the speech that reveals and supports the meaning of the action.

The underlying principle is that both kinds of performance are based on the same underlying competence. It is the very same knowledge of the rules, meanings and properties of social life that enables us to perform social actions competently, and to speak of them adequately when we are called upon to do so.

From the point of view of action, social life can be divided into a number of overlapping episodes, in which sequences of actions result in social acts. Speech occurs within such sequences of action as part of the action; for example, when I insult you by using a rude word.

Microsociology provides us with a highly-differentiated set of models for analysing such sequences of actions from an external or imposed point of view. These are the liturgical and dramaturgical models of ethnomethodology and symbolic interactionism.

But in social life, talk is not confined to interjections in action, it is also involved in giving "accounts". It is by means of talk that social action is made intelligible and warrantable, its meaning made clear and its correctness supported. It is within the study of accounts that people's own concepts are revealed.

The radical aspect of ethogenics is the principle that both action and speech are based upon the same underlying competence. We should give priority to the concepts revealed in accounts in the development of the analytical schemes by which we impose a structure and meaning on action sequences we do not yet understand. Thus the two aspects of ethogenic analysis interact at the level of scientific investigation.

But accounting interacts with action in another way, as the act of giving an account is also a kind of social action. A full analysis of an episode will therefore involve, among the actions, the giving of accounts; and again, further accounts may be elicited to justify the kind of accounting that has emerged as part of the action.

Ethogenics, then, involves a dual method: the microsocial analysis of episodes and the analysis of accounts. On the basis of these we attribute skill and knowledge to competent participants in social action.

At this point the difference between *external*, imposed views of social episodes and internal revealed views becomes crucial, since there are many categories of people who have a hard time making themselves heard, of having their accounts taken as a *serious contribution* to the scientific understanding of what happens. Children, football fans, schizophrenics, and so on can come in this category.

This situation is nowhere more apparent than in the discussions in the official rhetoric of schools, particularly on matters as the sources of violence. A recent ethogenic study has shown how orderly and rule-bound are those episodes which, seen from the point of view of the outsider, look most anomic and pointless in their violence (see *THES*, July 25, 1975). Of course, it is no part of the ethogenic viewpoint to fall into the trap of supposing that just because a practice is orderly, it is socially justified.

Much of recent sociology, particularly sociology of education, has been concerned with the issue of power, and its transmission via the educational system. Indeed, a recent work on the sociolinguistics of the educational system has been called, *Class, Codes and Control* (by Basil Bernstein).

Even in that title there lies a serious scientific error. Power has been treated in much recent sociology, not as an individual skill, but as a class attribute, concealing its most important aspects and so making it impossible to propose effective ways to effect its redistribution. From an ethogenic point of view, however, power is locally constituted; it is an individual skill. It is not an attribute of a class, nor of members of a class by virtue of their membership.

The revelations brought by this shift of theoretical attention are profound. Various recent works have shown the power structure of the methods by which individuals constitute power for themselves and gain control over others, and have emphasized the vital role played by the subtleties of particular forms of speech.

B. Torode, for example in his contribution to the book *Life Science* (Wiley, 1976), has shown how, by the appropriate choice of pronoun grammar, it is possible for a person to speak in a way that makes it almost impossible for his hearers to challenge his claim to authority.

Torode's studies of teachers' speech provide detailed analyses that carry very great conviction. For example, the teacher who uses such a speech style as, "We'll have to see", when coping with a request, conjures up a realm of authoritative "voices", the "we" who deliberate out of sight and whose legislation and rulings may or may not be passed down.

Of course, the management of others is not wholly a matter of speech. In a recent semi-popular book called *Power: How to Get It and How to Use It*, M Kordar has revealed some of the ethogenic techniques by which face-to-face power is acquired and maintained. A very striking example is the use of the corner, in particular by people of individual power.

A great deal hangs on the shift from the sociology of power to the ethogenics of power, in the local creation of social relations. The old radicalism based its programme upon the former view, and stares with incomprehending amazement at the same old social vices of contempt and repression now reappearing. A new, effective way of reconstituting society will base itself upon the latter.

Society is a thin but tough web of ritual and conventions stretched over an abyss of anomy. The flux of unintended consequences, shorn of the human shepherding by which meanings are imposed upon it, is a broad tidal flow, too coarse in texture to influence the way it is interpreted by any individual.

Attempts to improve the quality of human life by altering the tidal flow—or "the system"—are doomed to failure, since they leave the fine grain of human life untouched, and it is in the fine grain that the ritual practices are seated by which respect and contempt for persons is generated.

The new psychosociology, by revealing the methods by which respect and contempt are created, and by itself *respecting* the exploratory and meaning-giving aspirations of members, will allow us the power of self-intervention. But I don't know how we can make anyone utilize this new-found knowledge.

Next week: David Papineau replies

"From an ethogenic point of view, power is locally constituted; it is an individual skill."

The author is lecturer in the philosophy of science at Oxford University.

Fragments of a life in academe: 7—Wisconsin

City of frozen lakes and nubile students

I reckon I got the invitation to Wisconsin through solving a riddle. Mark Singer, chairman of the philosophy department on the Madison Campus, was having dinner with me and others in Birmingham, and he posed the question "Is the difference between a difference in kind and a difference in degree a difference in kind or a difference in degree?"

I gave a plausible answer, admittedly relying on a piece of fallacious argument so prevalent among those who have taken the linguistic turn as to be scarcely noticeable. A small price is available for those guessing the answer and the fallacy.

A few months later, suffering slightly from frostbite, my family and I found ourselves in the beautiful city of Madison, cradled in frozen lakes and crowned by the Capitol and a mile away by Bascom Hall, where philosophy was taught.

I also gave a course in the history department and participated in the Buddhist programme—so soon found myself introducing eggheads to one another. Among the luminaries there was George Morse, noted historian of modern Germany who won a national award for distinguished teaching and was therefore given a year's leave from what he was so good at.

With over 30,000 students on that campus alone, some departments were huge. The chairperson in English told me that if a young man said good morning to her in the corridor the chances were that he was teaching in the department. That is why I had to perform so many introductions.

But with size went a lot of distinction. They even hired full professors in mathematics aged 21, but without tenure. The whizz kids goes out of kilts at thirty, so folklore has it in the world of transfinite numbers and other esoteric non-existent objects of mathematical contemplation.

While there I had some big moments. One was when I was called up by an enthusiastic law professor to tell me that a book of mine had been quoted in the Supreme Court, regarding the case of a Californian who had devised his own religion and therefore claimed exemption from the Vietnam War. I did my bit for the lack of war effort.

But the matter I treasured most was when a girl taking my history course came into my office brandishing a printed examination paper in political philosophy. How would I answer question three she explained. "Damned silly question", I said (it was "Marx turned Hegel on his head and Tellhard de Chardin turned Marx on his head, so Tellhard was an Hegelian'. Discuss".)

But I droned on a bit to satisfy her. Evidently she was apprehensive about what she herself had written. She got me talking about two other questions. At last I said "And what did you answer?" She said breezily "Oh, the examination isn't till tomorrow".

I was not as yet conditioned to such avant garde methods. A few days later she came in, while I was completing grades. "What are you giving me?" "I'm giving you a C" I said. "But I'm better than that" she complained. "Why, I got an A in political philosophy."

I bowed gravely and thanked her for the compliment. I last saw her on the Lancaster campus at a conference of international lawyers, she having married a wealthy member of that species. Definitely a bright lass.

But the danger was corruption. At that time some young professors were giving As to get people off the draft or because they were radicals, or beautiful of course. Still the opportunity to sleep your way to consistently high grades is limited. Most academics are actually respectable, even if latterly older professors have become susceptible to marriages with nubile supervisees.

In the philosophy department there was much life, though in a seller's market some younger folk were less exciting. There was much suspicion of metaphysics and religion. I was given the supreme compliment by a philosopher of science. In his cups after the meal he confessed "You are the first intelligent guy I've met who takes religion seriously". I drowned my blushes in another bourbon, trying on my serious look.

In many ways we would like to have stayed in Madison. The cold went suddenly. The lilac-of-the-valley came up along the elm-lined street, and fell over the day after in the sudden heat. Folk lounged on the terraces of the union building by Lake Mendota. And many a man and lass from Wisconsin and beyond got a good education. But Burgundy called us.

Ninian Smart

The author is professor of religious studies at Lancaster University.

BOOKS

Mourning for the old ways

The Great Universe of Kota: Stress, Change and Mental Disorder in an Indian Village
by G. M. Carstairs and R. L. Kapur
The Hogarth Press, £5.50
ISBN 0 7012 0412 5

The Great Universe of Kota describes a comparative study of the incidence of mental disorder among three castes in a village of Southern India. It takes its title from the ironic phrase the villagers apply to their community: Kota is at once a rural backwater of 9,000 farmers and fisherfolk and a microcosm of Indian society. So the *study, too, is both an attempt to assess the mental health needs of one small village, and a way of exploring the most universal, perplexing and elusive questions about the nature and causes of mental illness.*

We no longer believe that mental illness is the curse of modern civilization—a punishment for the hubris of disturbing some simple, more natural social order. Wherever we look at populations and cultures we find states of mind which are recognized as disordered. Thus mental illness appears to be a universal human affliction, and if we could compare its incidence in different groupings of people, we ought to understand more about its causes: If some such illnesses are biologically determined, they should be largely independent of cultural influences; if they are provoked by stress, they should vary with the tensions to which people are subjected. But the design of a comparative framework within which to explore those issues is extraordinarily difficult.

First, the behaviour which is perceived as being mentally ill is culturally determined, even if its causes are not. Walking naked down the road, seeing visions, being possessed by an alien personality are only symptoms of a disordered mind in the context of assumptions about the nature of reality with which they cannot be reconciled, and these assumptions vary greatly within and between societies and situations. Second, and because of this, any classification of mental illnesses tends to break down when applied to different populations. What, then, is the behaviour whose incidence is to be compared?

The Kota study was designed to resolve the first of these methodological puzzles by confining its comparison to three castes within a single village. All were Hindu, integrated in the life of the community, and so presumably shared much the same assumptions about their world. But they varied in status, in occupation and, especially, in family structure. The Brahmins hand down property from one generation to the next through the male line, and men live with their wives, either in their father's house, or more often, nowadays, independently. The Bants and Mogers traditionally followed a matrilineal pattern of inheritance, where wives remained in their parents' houses and brothers supported their sisters' children. Matrilineal inheritance is now illegal, but the pattern of residence is slow to change, creating ambiguity and tension: wives may be welcome neither in their husbands' or their brothers' family homes. So, in comparing these two castes with the Brahmins, the study hoped to isolate the influence of stressful change upon the incidence of mental illness.

But this still left the second issue unresolved—how was illness to be defined? The investigators were determined not to impose categories of disease and symptom classifications derived from another culture. So they tried two kinds of description—one derived from symptoms, the other from need. The symptoms were chosen through a series of pilot investigations, to establish those which could be consistently recognized both by informants and investigators—typically sleeplessness, tiredness, somatic discomfort, anxiety, depression, delusions—without prejudging their diagnostic implications. Needs were assessed by the frequency with which people had sought help, their sense of their ability to cope with life, and the impoverishment of their social functioning. The last of these was abandoned. Most people, even if they seemed otherwise unwell, could meet minimal requirements of social functioning; and any more exacting definition involved a qualitative judgment which the investigators felt they could not support. The first, of course, only revealed those needs which people felt could be appropriately met by consulting a doctor or traditional expert in such matters. All the indicators were designed so that a relatively unsophisticated but trained team could, under supervision, record them consistently, without great cost or trying the patience of the villagers.

As a whole, the method worked well, on its own terms. The results showed significant differences between groups in the population, as measured by both symptom and need, which could very plausibly be explained by differences in their social circumstances. Above all, the women of the traditionally matrilineal castes were more likely to show symptoms of distress, felt less able to cope, and on all measures combined seemed more in need of help than any other groups. And among them, the women who had changed over to living with their husbands rather than their brothers were most at risk: over half of them had symptoms. The disruption of the matrilineal pattern did not seem to disturb men, but for the wives who had to survive the tensions of a household where they were only ambivalently accepted, the stress was evident.

Shiva Nataraja, the goddess who creates and destroys. This twelfth century bronze statue is illustrated in A Concise History of Indian Art, to be published by Thames and Hudson on Monday, at £4.95 and £2.50.

Yet does this finding really tell us much about the need for psychiatric services? The women of these matrilineal castes were the victims of a social change, imposed on them by the state, which undermined their accustomed pattern of social relationships; they had been bereft of a structure of reliable expectations within which to organize their lives. What to expect now was still uncertain: some wives still lived with their own families, some with their husbands', some in "the couples' separate homes; their rights competed ambiguously with those of their husbands' sisters.

Thus the meaning of marriage, of family duty, was cast in doubt, and this profound disruption of social meaning, of one's place in life, can be seen as a bereavement, analogous to the loss of a crucial relationship by death. The normal reaction to bereavement is grief, and its characteristic symptoms are the same as many of the indicators chosen for the Kota study—insomnia, restlessness, somatic distress, anxiety, depression, thoughts of suicide, guilt and hostility, social withdrawal. Any bereaved person in Kota would surely have been recorded as in need of treatment. Yet we do not usually think of the bereaved as mentally ill, nor in need of psychiatric care.

If we describe these women of Kota as grieving for loss, rather than displaying the symptoms of mental disorder, then the context in which their distress might be followed is not at all obviously psychiatric. The collective bereavements brought about by disruptive social changes can often become more manageable through forms of organization which articulate the ambivalence of the transition from a past that must be given up, and a future whose meaning has not yet been established. They do not resolve the tensions, but bring project them into some form of association, where the conflicts can be articulated, and membership provides a supportive sense of belonging. Hence the needs the Kota women might be better served through new kinds of social organization, through the intervention of someone whose social position enabled them to articulate their prevailing sense of loss, than psychiatric help. The context becomes therapeutic—a question of right the principles which ought to govern social relationships, where the search for meaning can be embodied in collective actions which are themselves meaningful.

But if we can translate symptoms of mental illness into grief, can we not similarly translate all kinds of mental disorder into categories of thought, once we understand their causes? If we can establish that some stress generally or chemically determined others by brain damage, are they still fundamentally "mental"? If, like some neurotic patterns, they seem to stem from ambiguities and conflicts which people fear to acknowledge, is their unravelling well-described in terms of insight and cure, rather than learning to understand oneself? If mental illness represents a residual category of unexplained behaviour, that is, the more we come to understand causes, the more it can be related in other terms, and the narrower that it falls within the competence of any one profession is less and less likely.

The outstanding virtue of this study is the clarity with which it confronts the methodological problems of comparative research, showing what this research can achieve, it raises fascinating and fundamental questions. Its weakness, I think, is its unquestioning assumption that it is studying disorders for which the appropriate response is some kind of professional health care, under a modern. In its concluding account of need, for instance, it combines its indicators so as to identify the highest need among the women from matrilineal castes. This is seen as confirmation of this definition of need the fact that all anthropologists and psychotics are included in it. But, as it happens, epilepsy is a psychosis are commoner among the Brahmin men especially, and among women. This surely suggests that very different kinds of suffering with very different causes are being combined in ways which only obscure the causes which the study itself has discriminated. And, I think, its conclusions are vitiated into indiscriminate suggestions for treatment, determined more by the professional bias of the research than the nature of its findings.

Peter Mur

Burning the midnight candle

China's Examination Hell: The Civil Service Examinations of Imperial China
by Ichisada Miyazaki
translated by Conrad Schirokauer
Weatherhill, £6.00
ISBN 0 8348 0104 3

I imagine that by now many doctoral theses have been written on the psychopathology of examination stress. Most of us have uneasy memories of the premonitory symptoms which are still liable to occur in dreams—excessive concentration on previous moral shortcomings, sweaty palms, a weakening in the functioning of the knees and, in sudden access of paralytic amnesia, mitigated only by a frenzied clutching at one or more pathetic scraps of irrelevant information.

Professor Miyazaki's work on the system of public examinations which lasted in China with only short interruptions from 587 to 1904 can only be recommended to those with strong nerves. As the system developed, access to China's governing elite was largely confined to a strictly limited number of academic clans who successively competed in the district, prefectural, qualifying, metropolitan and palace examinations a process which might, and often did, take the greater part of a lifetime.

The curriculum was ideologically specialized, being confined to the memorization of the Confucian classics and the composition of poems and essays. Whatever may be said about the Chinese mind, it is emphatically not a tiny one. It was necessary, to start early, because there was a lot to learn. The textual material of the classics which had to be memorized is calculated, by Professor Miyazaki, to have required six years of memorizing at the rate of 200 Chinese characters a day. Those who failed, or, in Chinese, "wrote blank papers", were ridiculed as "not strong", it shows that the teacher is lazy.

Formally speaking, there were no class distinctions barring the magic road leading to success as a *Chin-shih* or honoured graduate of the system, although you were ineligible if your father or stepfather had kept a brothel. However, towards the top of the Jacob's ladder, where the air became more and more academically rarified, the process became very expensive.

Mr Gladstone told Queen Victoria that in his view the rest of open examination is also an effectual test of character, in that "the previous industry and self-denial are rarely separated from general habits of virtue". And Chinese can be said to have carried this viewpoint to extremes. The rules, apparently held, for instance, that if the provincial examiner was a man of very great learning he was widely believed to have reduced three women.

Once you were through the metropolitan exam, failure was virtually ruled out but *amid* the ritual and banqueting and an ever increasing demand for a programme of full *kow-towing*, the competition developed for the top places among the *Chin-shih*. Sometimes the Emperor himself would set the questions, prefacing the with new think-tank: "You are leaders are talented men who are qualified in repeated examinations and now, facing the palace examination, are about to try to answer My questions. I am the Son of Heaven, responsible for governing the Empire. Night and day I exhaust my brains so that people will be able to live in tranquillity. Fortunately I have this opportunity to put questions to you graduates and wish to hear your well-considered opinions upon the following."

For the successful, the glittering prizes. The others were not infrequently conspicuous as leaders of armed rebellions. However, as Professor Miyazaki points out, the system had its merits in a predominantly agricultural society. It had its original desire to curb the power of the hereditary aristocracy, it served to subject the military to civilian control. Although it was never anachronism by 1904, it was remarkably progressive in its early stages.

T. E. B. Howar

BOOKS

Relative theory

General Theory of Relativity
by P. A. M. Dirac
Wiley, £5.80
ISBN 0 471 21575 9

It goes without saying that a book by a man of the stature of Paul Dirac is worth reading. His pioneering book on quantum mechanics has been required reading of physics students for forty years. In this new book, Dirac's masterly exposition is turned to general relativity, and it is probably the most economical text on the subject I have ever read. Dirac's ability to cut right through to the heart of a subject is fully exploited in a book which contains no less than 35 chapters in 69 pages. This is quick-fire reading by any standard, and naturally only a skeleton of mathematical theory can be encompassed in such a short space. Nevertheless, the essentials of Riemannian geometry are all there, dropping effortlessly into place, and by page 30 the reader is already on to Schwarzschild's solution and black holes. Much of the remainder of the book is devoted to action principles for electromagnetic, gravitational and matter fields.

It is an ideal book for students who want to learn an outline of general relativity quickly, or who need an introductory discussion to accompany a more sophisticated and extensive treatment. The approach adopted is very much a traditional one. Modern differential geometry does not appear, and students who are learning relativity on the style of Misner, Thorne and Wheeler will find a strong contrast. Moreover, the reader must not expect any but the briefest physical discussion of what relativity is all about. No motivation for the introduction of Einstein's equations is given, for example. This is not a criticism of what is surely a very useful teaching text. The reader should treat this book as a beautifully concise, nonsense summary of the essential mathematical framework of general relativity.

Paul Davis

Under water

Oceanography and Marine Biology, volume 13
edited by Harold Barnes
Allen & Unwin, £21.50
ISBN 0 04 551024 5

This series has now become an established source of reference. In any journal attempting so wide a coverage, not all the articles can be of immediate interest to the reader, as so much depends on the individual contributors and whether their style encourages one to browse through their article and emerge enlightened.

The present volume is very much the mixture as before, containing seven reviews of varying length and interest. The oceanographical study of "The Cariaco Basin" by Richards is an excellent example of how to combine detailed discussion of the hydrography and chemistry of this fascinating area with a biological awareness that made reading it rewarding. Not so the long review, "Fungi in Oceans and Estuaries" by Hughes, which provides very little to sustain the interest of any but the most ardent mycologist. L. Cheng gives a general survey of "Marine Pleuston", providing a concise and easily assimilated survey of this group and incorporating data from Russian workers which is not generally available in translation.

In reviewing the "Relationships between Marine Plants and Sea Urchins", J. M. Lawrence assesses the ecological significance of echinoids as grazing organisms, providing tables of food, absorption and growth efficiencies when fed on a wide variety of algae. Two articles deal with fish, Avril Woodhead discusses the "Endocrine Physiology of Fish Migration" considering the role of the interrenal, thyroid and gonadial hormones in influencing fish migrations, while A. M. Bullock and R. Roberts provide a baseline study of the histology of the skin in "The Dermatology of Fish". There is a short paper on the "Economics of Aquaculture", by C. J. Shepherd.

Despite its length, the book has fewer articles than usual, suggesting that very little constraint has been imposed on some of the contributors. In the present financial climate most scientific journals have taken a very hard look at what they offer by way of value for money, and for this price I would expect more articles of a more reasonable length.

D. A. Dorsett

Space waves

The Wave Equation on a Curved Space-time
by F. G. Friedlander
Cambridge University Press, £15.00
ISBN 0 521 20567 0

Improperly Posed Boundary Value Problems
edited by A. Carasso and A. P. Stone
Pitman, £5.60
ISBN 0 273 001051

F. G. Friedlander's book is the second volume to be published in the new series of Cambridge monographs on mathematical physics. It deals mainly with the local theory (created by Hadamard and Riesz) of a scalar wave equation on a four-dimensional Lorentzian manifold. The energy formalism of differential geometry and the theory of distributions are used and useful surveys of these two topics are provided. An excellent discussion is given of the null hypersurfaces of the space-time, which are also the characteristics of the wave equation, and the geometrical approach illuminates the link between geometrical optics and the wave equation.

The significance of causal conditions on the space-time is made explicit in the author's discussion of the fundamental solutions of the wave equation; and the geometrical approach is once again to the fore in his discussion of the Cauchy problem, the characteristic initial value problem and Huygen's principle. He also discusses tensor wave equations, the wave equation in n-dimensions and he concludes the book by dealing with the method of descent.

Friedlander has placed the emphasis on rigorous mathematics rather than physics in this elegant work and it will be of interest to both mathematicians and theoretical physicists concerned with the local passive effects of gravitation, represented by the curvature, on the behaviour of waves.

Improperly Posed Boundary Value Problems is a collection of reports given by participants at a conference held at the University of New Mexico in 1974. The 12 research papers and expository surveys in this volume deal mainly with various types of ill-posed problems in partial differential equations and are directed at specialists in this field.

D. C. Robinson

Self control

The Life of Mammals: Their Anatomy and Physiology
by J. Z. Young with the assistance of M. J. Hobbs, second edition
Clarendon Press: Oxford University Press, £8.75
ISBN 0 19 857156 9

Professor Young's book gives a comprehensive account of the life of mammals, in which the main theme is the consideration of the mammalian body as a self-controlling machine. The many and varied regulatory systems control and coordinate the activities of the various parts of the machine, and maintain an internal stability in the face of an external environment where conditions fluctuate.

The main chapter headings correspond to the separate parts and organ systems of the body and deal with their functioning and development. From a concise and lucid but always very readable text illustrated with more than 400 excellent figures, the reader is presented with a wealth of up-to-date information from many fields of research. Young emphasizes the relationships between structure and function—in terms of cell ultrastructure, tissue architecture and topographical anatomy. At the end of almost every chapter is a consideration of the ways in which regulatory mechanisms in the organ or system under discussion are related to control systems in other parts of the body and to homeostasis in the body as a whole. The book also contains general chapters on communication, control and the continuation of life, the protection and defence of the body, and internal secretions and homeostasis, as well as a brief survey of mammal development.

Since the first edition was published, rapid progress has been made in many fields; the functions of some organs, such as the pineal gland, which was almost a total mystery in 1958, is now reasonably well understood. Young argues that the advance of knowledge of the nervous system has been sufficiently significant to justify devotion of 20 of the 53 chapters to the brain and sense organs. Some readers will no doubt consider this an over-emphasis of the author's own special interest which leads to an unbalanced view of mammalian life, but others will appreciate this authoritative survey of an area which many students find difficult, especially as it forms part of a more general treatment of mechanisms of control and coordination.

The Life of Mammals is attractively produced and, unlike many a second edition, has been extensively revised, with many new figures; less than half the original text remains the same. It includes a subject index, an author index and an extensive bibliography. One aim of the book is to bridge the gaps between the basic and medical aspects of biology.

Michael Balls

Infinity

Lie Algebras Generated by Finite-Dimensional Ideals
by I. Stewart
Pitman, £5.60
ISBN 273 00142 6

This is the second of a new series of research notes in mathematics, designed for rapid publication of monographs on current work in pure and applied mathematics. It is a well written account of a contribution to the theory of infinite dimensional Lie algebras largely due to the author himself. The aim is to prove, for suitable classes of Lie algebras, analogues of the classical finite-dimensional structure theorems, one of the main themes being the existence and conjugacy of Cartan sub-algebras and Borel sub-algebras. The methods are an amalgam of standard Lie algebra techniques and a translated version of the theory of formations of soluble groups, exploiting the well-known analogy between groups and Lie algebras.

P. J. Higgins

People problem

Primary Productivity of the Biosphere
edited by Helmut Lieth & Robert H. Whittaker
Springer-Verlag Berlin, distributed by Chapman & Hall, £14.50
ISBN 0 387 07083 4

The main purpose of this book is to summarize the results of the International Biological Programme and other research on primary production of the biosphere, defined here as the global film of organisms rather than the surface environments in which they live (the "ecosphere"). The hope is that net primary production will one day be seen as a figure of real significance to man and one of its uses would be to determine the maximum human population that could be fed. In the preamble the editors state that "unregulated increase of the human population beyond the world's sustainable carrying capacity must be considered a moral vice" although the final chapters recognize that other considerations may operate well below this level of population and that the optimum may be much less than the number of people that can be supplied with food.

The book is divided into four parts: the first is introductory, the second deals with methods of assessment, the third with global productivity and the final part with the problems of actually making use of all this information. The whole volume is well presented, well organized and with useful reference lists. The main methods of assessing productivity are clearly described, for aquatic and terrestrial ecosystems, for the measurement of energy content of biological material and for the assessment of regional productivity. This section serves as a useful guide to which methods are appropriate to which communities and situations. General propositions are formulated, such as the greater relevance of biomass measurement in terrestrial systems, because of their higher biomass/primary productivity ratio.

There are the customary references to the complexity of the subject, but it is refreshing to find that this is presented, at least for forest ecosystems, as an opportunity rather than a handicap.

Gaps in our information are clearly pointed out: for example, that the amounts of annual loss of root hairs and roots from plants in the field are almost unknown.

The book gives considerable attention to the prediction of productivity patterns from environmental data and good descriptions of the development of productivity maps based on the Miami, Montreal and Thornthwaite Memorial models. The search for indirect ways of assessing primary productivity reflects the fact that direct measurement is both expensive and time-consuming.

The final part contains a useful summary of world productivity estimates but perhaps overestimates the importance to man of such knowledge. Even so, one must agree with the conclusion that "Knowledge of primary production should contribute to wise and conserving management of the earth's living mantle".

C. R. W. Spedding

Child psychology

The series, *The Psychoanalytic Study of the Child*, is 30 years old, and volume 30, edited by Anna Freud, has just been published by Hogarth Press at £11.00. As in 1945 the concerns remain the same: in therapy the range extends from child analysis to child guidance and group work; in theory, from the basic problem of genetic psychology to those concerned with the interrelation of culture and the upbringing of the child".

Volume 30 is arranged in sections covering problems of development, clinical and theoretical contributions and applications of psychoanalysis.

BOOKS

An engraving by Joseph Swain after designs drawn on the wood by Charles Bennett, a mid-nineteenth century illustrator and author of "The Fables of Aesop and Others translated into human nature" mentioned in Early Children's Books and Their Illustrations, Oxford University Press, £15.00.

Second-order criticism

The Year's Work in English Studies Volume 54, 1973
edited by James Redmond
John Murray, £6.25
ISBN 0 7195 3408 9

Essays and Studies 1975
edited by Robert Ellrodt
John Murray, £2.25
ISBN 0 7195 3232 9

Admirable books both, in their modest kind continuing the tradition of professionalism we have come to expect of the English Association. One catalogues the wares available, so to speak, and the other acts as a case of samples. And what a variety of wares were turned out in this one year.

To *The Year's Work in English Studies* the index alone takes up 34 pages of small print, at three columns to the page. There seems to be something for everybody on everyone who was anyone—and on some who were not. Here is God's plenty indeed. Why then does the heart sink as one leafs through this formidable record of academic endeavour? Why the sneaking feeling that the burning of the library at Alexandria may have been a fortunate disaster?

Perhaps because of the inescapable impression that ours is another Alexandrian age. The jaw of the professional jungle is "publish or perish", or so believed to be so. For the earlier periods, naturally, little fresh literature worth writing about ever "becomes" available, so the specialist inevitably turns into a man who publishes more and more about less and less.

However, the same phenomenon is to be found in the modern section. Dipping at random, one finds that Joseph Conrad now has a society and a journal all to himself; that detailed studies are available of Huxley's style of *letter-writing*, bird imagery in *Finnegans Wake*, classical echoes in P. G. Wodehouse, or the critical response to T. S. Eliot's adoption of Kipling. And much the same goes for American literature. Good or bad (and the section editors do nobly try to distinguish) such work is hardly central.

Apart from the pressures of professional advancement, of course, there are those of student demand, as term-papers or dissertations more and more replace formal examination. Another factor, doubtless, may be the current dearth of really great creative writers. Our age is also Alexandrian in being a Silver Age of literature, when the giants are smaller.

Whatever the causes, the fact of so much second-order or peripheral criticism, does raise questions. Will major criticism simply be lost in the flood? Will reputations depend on the chance selection of reviewing? Will students cease to read and ponder original literature at all, going instead to bibliographies for the material of their "special study"? Are publishers already rejecting creative literature in favour of esoteric criticism?

Possibly alarmist speculations, these. But merely to look at the topics of the gifted critics featured in *Essays in Studies* seems to indicate the possibility of drawing one modest moral. Those topics range from Glynne Wickham's *Masque and Anti-masque in "The Tempest"* to Laurence Lerner's *Literature and Money*—both of them, like all the essays in between, dealing, however interestingly, with matters that are not only somewhat peripheral, but are also not *specifically* literary; that is to say, they are concerned more with what a writer is writing about, or why its significance, than with what is, after all, the essence of literariness, *how* well he writes about it. This feature they share with the overwhelming majority of the critics listed in *The Year's Work in English Studies*. The moral, then? That criticism for some years ought to be simple and explanatory, especially of style. For this is to literature what paint is to painting; and it is something students have least responsiveness to. It that applies to critics also, on the evidence, then perhaps so much the better: we should have an automatic limitation of production, a critical Group at least more manageable than it is at present.

Allan Rodway

Third realm

The New Grammarian's Funeral: A Critique of Noam Chomsky's Linguistics
by Ian Robinson
Cambridge University Press, £4.50
ISBN 0 521 20856 4

This is an honest, exasperating, good-hearted and on the whole right-headed book, which tries to do far too much in its 180 pages. Each of the linguists, philosophers and social scientists pilloried here could find ample basis for retorting that his views are hastily and unfairly represented, and his discipline viewed from a standpoint too external and unsympathetic to allow its problems and methods of inquiry to be grasped by the unistructed reader, or for that matter by the author himself. And yet few could fail to profit from meditating on the vision of language expressed in the book. Mr Robinson stands for the wholeness of language, and for the unity of language with the totality of human thought, feeling and being, both individual and social; in short, with Dr Leavis's "third realm" to which all that makes us human belongs". He is against any attempt to treat language merely as a collection of technical devices to be studied by methods of formal analysis, and more interestingly, but also more obscurely, against any attempt to offer an "external" explanation of language, by which, so far as I understand him, he means one which ignores the status of language as the prime vehicle of human consciousness and of the articulation of a "human world" which is distinct from the natural world.

The chief defect of the book is that these dark, but perhaps seminal notions are never, except in the most casual and passing way, explained or defended. Indeed, although there is a certain amount of offhand reference to Leavis and to Wittgenstein, Robinson's positive view about language is largely defined by the method of residues; as what is left over when the rather miscellaneous bunch of theorists he identifies as "Chomskyan" have been routed. As a result, not only is the book polemical to a degree which its reasonable and not unamiable tone does not altogether mitigate; the limits and direction of the polemic are never properly made clear. At times Robinson writes in a vein of Swiftian indignation which suggests that what he is against is simply the analysing intellect *per se*. "Unless the world goes finally mad . . . and our academic styles become those of the Grand Academy of Lagado . . ."

Elsewhere he seems prepared to treat grammar as a worthwhile inquiry and transformational-generative grammar as a genuine human. It is only the attempt to extend the methods of TG grammar to other aspects of language which he sees as ill-founded and misleading. We cannot, he thinks, catch the essence of language in a net of formal rules, and if we persist in regarding as "language" what can be so enmeshed we shall be correspondingly diminished. But where, exactly, does the utility of formal analysis end? Robinson's strongest arguments concern semantics, where, as is well known, the linguistics associated with the Massachusetts Institute of Technology is at its weakest and most over-extended. But even as Robinson is having most fun finding acceptable contexts for sentences claimed by rash Chomskyans to be "semantically anomalous" the fierceness with which he elaborates such contexts, and the certainty with which he assumes his readers' acceptance of them, mutely testify to the existence of constraints upon semantic invention which must surely, if only in part, characterize "semantic competence", and which might yield to formal investigation, and even perhaps turn out to rest upon "semantic universals". The problem facing Robinson is really that of locating the demarcation lines which separate *Sensurlap language* and *parole*. Robinson mentions Saussure's distinction in a footnote. He might have done better service in his heights, and to his avowed mentors Leavis and Wittgenstein, had he made the consideration of it central to his book.

Bernard Harrison

Justice all round

A Bibliography of Dickensian Criticism, 1836-1975
compiled and edited by R. C. Churchill
Macmillan, £15.00
SBN 333 19194 3

R. C. Churchill's book offers more than its title suggests, for it is, in his words, "a mini-anthology as well as a bibliography". The quotations and comments which accompany many entries form a valuable feature of the bibliography, which Churchill believes to be "the most comprehensive yet attempted" of Dickensian criticism. He goes beyond the excellent bibliography by Philip Collins (1969) to which the author acknowledges his debt; Ada Nisbet's 110-page critical summary of the literature in Lionel Stevenson's *Victorian Fiction* needs updating and is anyway differently conceived. He seems, though, to have missed Joseph Gold's *The Stature of Dickens: a Centenary Bibliography* (1971) which, while it mainly covers the years 1870-1968 and is not very helpfully arranged, has some 3,625 entries, including many theses and relevant general works.

Churchill's main concern is not, however, with comprehensiveness, but "to do justice all round". He feels that earlier twentieth century critics such as Chesterton, Leacock, Quiller-Couch, H. C. Dent and himself have not received their due for pioneering insights—a view substantially similar to that expressed by Ada Nisbet—and he aims to restore the balance "while not denying the equal value of the best of the work done in the Victorian age and the modern period from Orwell, Wilson and House to the scholarly and sophisticated present".

The arrangement is chronological, in which general studies are followed by sections on individual works, aspects of Dickens such as his style and language, and his symbolism, and of critical comparisons with other writers. There is much cross-referencing, and the same items may occur in several contexts, but with appropriately different comments or quotations. It is not always easy to find one's way around, and the index, which lists names and item-numbers only, would have been more helpful (though of course longer) if subdivided. Bibliographical entries are brief.

How near does it come to "all round"? Those earlier critics such as Shaw and Chesterton through well, as does Edmund Wilson's decisive essay, and Orwell perhaps a little less. Later writers such as Trilling are sometimes not given more than a plain mention—perhaps it can be argued that they are in danger of being overlooked.

As the preface suggests, this is also concerned with the contribution and it is worthwhile turning briefly to that. He read English at Downing College, Cambridge, and read his first Dickens to the Dodo in there as an undergraduate. A revised and expanded version published in *Scrutiny* in 1941.

The essay emphasises the language: "It is always the life of Dickens that is so important; genius was essentially his life, and was recommended to us "for a reminder that the novel are is an art of early" Churchill claims that "it is Churchill's insistence on the importance of Dicken's language in modern discussion of his work is descended".

It would be difficult, on the evidence presented, to dispute this view. But on the wider broader influences, it is interesting to remind ourselves this central concern with life with the Word, which he shares with the Leavises and *Scrutiny* writers, is not too far in spite of its fruitful differences to the Russian Formalists of the 1920s.

A connected and perhaps arguable concern is with the writings on Dickens, and Churchill is at pains to underline some now classic changes of mind and annotations that he gives to show him at his most perceptive for instance on the famous *Times* essay of 1947. Perhaps present bibliography is the fruit of that disagreement, and as being a sort of extension of Churchill's as yet unwritten *Dickens in Perspective*!

Geoffrey

Cambridge values

George Crabbe's Poetry
by Peter New
Macmillan, £4.95
SBN 333 19234 6

Crabbe, said Leavis, was hardly at the "fine point of consciousness" in his time, but "is (or ought to be—for who reads him?) a living classic". This is the paradox from which Peter New sets out—for one would reasonably expect, as he says, a living classic to be alive to his own age.

He attacks the paradox in two ways, arguing that there is more than one "fine point" at any time, and suggesting, though I am not sure how deliberately, that a classic becomes more living, as he becomes more dead to his own age, at least to the temporary and local circumstances he and his characters find themselves in. New's tour of Crabbe's verse is conducted with an eye only for what he believes to be the truly permanent features of the landscape. The long attempt to separate the deserving from the undeserving poor, for example, at the start of *The Parish Register*, is a "thesis" Crabbe has to get "out of the way" before he can do the more important job, of painting the portraits of "real" people. Elsewhere, Crabbe's interest in freedom is not merely, we're told, a "backwash" from the French Revolution, but extends to a sense of the freedom to be found in "a sound and mature relationship".

To make Crabbe live, then, is to present his characters as being, if not of all time, at least of no particular time, and to reveal their differences and responses as "human feelings and experiences of permanent value". By so my doing alone quotations will have shown, those "permanent" values to be all too ossily dated, and, too, in the Cambridge of 1976 and more years ago.

In his first chapter New attempt to situate Crabbe in context of his time, by arguing the fine point of consciousness embodied in Wordsworth. Coleridge was not the same point as Jane Austen and they were at; and he tries to fit Crabbe's work as a contribution to the development of prose fiction, seeing his poems as moving from the "progress" form of the fable, as we find it in Spenser, the periodical essayists, towards the more complex character and relationships of more complex literary modes of the Victorian novel.

But, as often before, this reading of Crabbe as a novelist turns out to be a way of avoiding the very question that it raises, why did Crabbe nevertheless write in verse? What literary conventions and possibilities are inherent in the short narrative poem and in the long novel? For all that New says in detail promised on the jacket, New says little about Crabbe as a poet, beyond saying us that it wasn't because he made him choose the medium Pope, as nobody who has read Pope, as Crabbe's couplets twice at Crabbe's couplets ever have imagined it was what it was New does not tell us.

Almost every poem Crabbe wrote some discussion in the course of this book, and in that sense, as the blurb claims, a comprehensive study so far appears. But New approaches poems with such a restricted set of questions in his head that we get nothing like the relatively full assessment we are promised.

John D

BOOKS

To anaesthetize ideology

Ideology and Politics
by Martin Seliger
Allen & Unwin, £7.50 and £4.50
ISBN 0 04 320109 1 and 320110 5

Professor Seliger's new book is a big work on an important theme. It is about how thought influences action and how action, especially political action, changes ideas. This subject is one of the most difficult, even treacherous, of the living parts of political theory. Seliger's publisher makes a sweeping claim for his product: ". . . this book [is] the first since Mannheim to elaborate a comprehensive theory of ideology." We may be sure that this is no mere advertiser's boast as Allen and Unwin have backed their belief in the value of this 440 page book by bringing out simultaneous hard and soft-cover editions. In these straitened times that is serious backing indeed.

The first requirement of any contribution to so abstract and inherently controversial a subject is clarity. Seliger fails badly at the first fence. How many readers, I wonder, will get past an introduction, one of whose key sentences is:

> Whatever case studies in addition to those already completed or in progress indicate, I am fairly confident that I have demonstrated, on grounds of logic and empirical evidence, that political argumentation proceeds on different levels and that politics is as little separable from ideology as the latter can be opposed without reservation to factual knowledge or considered either as inexorably determined by or opposed to tangible class conditions.

Despite appearances, Seliger is trying to say something important in that confused sentence. But I am not optimistic that many readers will stay to discover it. Nor is Seliger's confusion confined to one or two sentences. Very little of part one of the book, which has such unhelpful chapter headings as "Vicissitudes and Vacillations" and "Reorientations and Anticipations", is at all easy to understand. Its theme is not actually terribly complicated. Seliger proposes (actually he does not propose, he insists—and that does not help) to distinguish between what he calls "the restrictive definition of ideology" and "the inclusive definition". "Restrictive definitions" limit the application of the "ideology" in such a way that it does not apply to the ideas and programmes of the definers. Characteristically, restrictive definers—Seliger has Marx and Daniel Bell primarily in mind—then go on to distinguish between a politics which is ideological and their own type of politics which they do not think is ideological, but is, rather, scientific or pragmatic.

I do not think this distinction between those who admit to being ideological (Seliger claims that whatever we say about it, in fact, we are all ideologists) and those who deny it, works. Neither does it get us very far. Marx would not have needed to deny being an ideologist in Seliger's sense of the term. One rather surprising problem about this work is that Seliger nowhere actually says what he means by "ideology", but it is clear enough from the context in which he uses it that he believes that:

- All politically significant action is taken by political parties.
- Such actions affect, and are known to affect, basic moral values (for example, justice, liberty, equality, freedom).
- In order to justify their actions to themselves, and to appeal for support from others, the parties wrap up their proposals into more or less fundamental principles which are more or less—usually more—coherent.
- Such congeries of principles are "ideologies".
- In order to play at politics one must have an ideology.

That is certainly not what Marx meant by "ideology" but it is not very different from what most people mean by it today and I do not really think anyone, Marxist or not, would strain at having his political ideas called ideological in this Seliger's inclusive sense. The problem with an inclusive definition of something—the definition includes so much and excludes so little—is that it tells us very little.

Seliger's inclusive definition is so broad that it is almost nugatory. When he says of a political idea that it is ideological he means very little more than that it is political. The things which gave theoretical sting to Marx's—and even Bell's—notions of ideology were precisely that their restricted definitions distinguished between two ways in which ideas affected political action: ideologically and scientifically.

When a reader was confronted by an accusation by a Marx or a Bell that his political principles were merely ideological while the speaker's were scientific, people took note. Many, like Mannheim, were moved to try to refute the charge. Marx's "ideology" had bite. It made some people who read it very angry. It inspired further thought about "ideology" and about the proper relationship between science and political action. To suggest that Seliger is no Marx is hardly fair; but I do want to suggest that one advantage of the restrictive definition which Seliger disowns—be it in Marx's or in Daniel Bell's formulation—is that it does make ideology interesting.

In the second part of *Ideology and Politics* Seliger states the case for his own definition, the inclusive definition, the main features of which I have outlined above. An important facet of this section of the book—which is, fortunately, much easier to read—is Professor Seliger's insistence on turning the various ideologies into abstract, ahistorical, aspatial patterns of ideas. His "ideologies" are eternal ideas, rather like Platonic ideas which recur from time to time in new places. It is important to the argument of the book that he establish that there is nothing like a fittingness between this particular ideology and the needs of a specific group of people at a particular time. The emphasis he places on the permanence of the various ideologies fits well enough to this end for it provides a contrast with the changing character of social groups.

Seliger is particularly keen to deny the proposition that there is any special fittingness between socialism and the working classes. He denies that either socialism (or communism) is in the interests of the working class and, further, that working people are particularly inclined to be socialists. In one wonderful paragraph he almost manages to say that more working-class people vote Tory than vote Labour; and that more middle-class people vote Labour than Tory:

> In England, the Labour Party . . . cannot rely any more than the Conservatives upon more than one-third of the electorate, two thirds of which can be classified as working-class. The vote Labour receives from the middle-classes seldom exceeds 20 per cent, while working-class votes not cast for Labour rarely fall below 40 per cent. At most elections about half of the Conservatives' total support comes from one third of the working-class vote.

It would have been more to the point to admit that people vote in various ways for various reasons, one of which is class, about which on the whole we know little. It would have been a lot easier to argue that American voters do not vote for class-based parties and to leave Britain out of it altogether. But to mention America thus would be to suggest a specific referent which would sit ill with the vagueness of the whole book. This vagueness leads to an exhausting style of argument which may be characterized as sweeping abstract assertions backed by endless strings of denials of hypothetical counter-examples.

This style is used to the utmost to deny any connexion whatever between interest (most especially class interest) and ideology. This move in the argument is crucial if the author is to make Platonic ideas out of his "ideologies". It is also (and this is a more important point) essential if he is to establish that all ideologies are equally interesting and equally valid. Underneath the strong attacks on Marx and Bell, Seliger is a gentle pluralist. The point is that since we are all ideologists now, and all ideologies are equal to one another, why not just live and let live?

Seliger insists that all ideologies exist on two levels; the fundamental and the operative. This distinction underlies the third section of the book. Here we see the prejudices of the author in full flower. In chapter seven he allocates scores to "paradigmatic" ideologies on both levels. Communism is rated on each of a series of issues like nationalization of resources, on both the fundamental and operative levels. The highest "left-wing" score Seliger hands out is 0—the highest "right-wing" 100. Communism gets full marks, ie, 0 on the fundamental level on the "classless society" issue. It earns a mere 70 on the operative level for this issue. This means Communists really believe in a classless society but do little about it when in power. Social democracy, by contrast, gets 20 and 80 respectively on the same issue.

This is nothing more than a pseudo-scientific way of saying that communism is more fundamentally serious about creating classless societies and rather more likely to do something about it when in power than social democracy. These scores are, quite literally, picked out of thin air. Seliger: "I coordinate the orientation in respect of each issue . . . according to a purely impressionistic estimate on what seems to me confirmed by generally verifiable observation of political events and processes". These "impressions" (impressions of what?) are then averaged together and compared. Communism rates 35 on classlessness, social democracy 50. In an appendix, Seliger excuses this exercise with "it should be self-evident that my averages are not mathematically proved . . . but reflect the result of less formal, though not necessarily incorrect conjectures".

What, finally, do all these "not necessarily incorrect conjectures" signify? The publication of this book is a political act. Marx had the decency not to publish his great work on ideology (the *German Ideology*—published after his death); but his publication of the *Critique of the Gotha Programme*, like Bell's publication of the *End of Ideology*, were both also political acts.

Marx sought to make revolution. Bell sought to make progress. Both wrote about ideology to warn their contemporaries—mainly the young?—against retrograde ideas. Seliger's book, especially its paperback edition, is aimed at the same market. In our regimented age it is aimed at undergraduate courses in ideology. Most American and many British universities and colleges now teach about ideology as part of their politics curriculum. Through them Seliger could reach the coming generation of leaders. And what would he tell them? That ideology is boring and politics dull. This book comes to anaesthetize ideology; the heavy blankets of subordinate clauses, the profusion of abstract nouns, the sheer weight of double and triple negatives serve well to smother any youthful response. I cannot for the life of me believe that any healthy human being who is required to read this and no other book on ideology will ever again have anything to do with ideology. Such readers will be safely cocooned from any political action for years. What better preparation is there for a political culture which has so palpably lost faith in itself and its future?

H. M. Drucker

BOOKS

Non-elitist

Nigerian Politics: The People's View
by Margaret Peil
Cassell and Collier Macmillan, £1.95
ISBN 0 304 29716 X

Too much of the analysis of Nigerian politics has been written from the standpoint of the elites, argues Dr Peil in an excellent report of her "Civilian Rule Survey" carried out in the south of Nigeria in 1971-72. Even Marxists, she adds, are elitist, often having little contact with the *talakawa*, or men in the street, for whom they profess such concern. Here at last is the *vox alter* of Nigerian society, the voice, if you like, of the Fulani herdsman who lugubriously confided to his interrogator: "The poor man's voice has never been heard, and I don't think there's anything to bring it about."

With the sample covering only 0.001 of Nigeria's population and over half of the country closed to inquiry by official intransigence, it would not be difficult for the cynic to query the validity of Peil's pioneering findings or the reliability of the views of the non-elite, sometimes barely literate, on the political process. Yet there is a positive feel of authenticity about the replies elicited; and, as her predecessors in the field of sample surveys have shown, like Free and LeVine, Himmelstrand and Inkeles, Nigerians are incontrovertibly preoccupied with, and passionate participants in, their political system.

To present her findings within a non-statistical argument, Peil converts her manifold samplings into a score of easy-to-grasp tables, placing them within a singularly well-informed summary discussion of the standard literature on Nigerian politics. The tabular data are tellingly illustrated (and enlivened) by pithy verbatim glosses from respondents—carpenter, tailor, market-woman and cattle rearer. The people's view is given on not only the fundamental question of whether Gowon's target date of 1976 was too soon/too late/about right (with significant scale scores according to respondent's educational, ethnic, occupational, age and sex background), but also on preferences for a Prime Minister or executive President, for a strong or another weak central government, for MPs' qualifications and salaries, and for the optimum number of political parties.

It should not be thought that here is another desiccated, statistical presentation. Peil's easy familiarity with the literature and her intimacy with West African life ensure that here is a text as eminently readable as it is painstakingly researched. There are a few unfortunate discrepancies between textual and bibliographical entries (Davies/Davis, Stouffer/Stauffer). But the only errors calling for correction in a second edition would seem to be the wrong figure for Nigeria's size in square miles and the overlooking of the fact that direct elections were held in parts of the north as early as 1956.

Granted the acceptability of this sample of public opinion, what conclusions can be drawn from this non-elitist view of the Nigerian political system? Of the evidence that Nigerians are interested and informed on matters political there can now be no doubt: rationality and empiricism can no longer be said, as Almond and Powell had it, to be the prerogative of highly bureaucratic industrial societies. The most prominent divergences of opinion relate to educational and ethnic background: ethnicity emerges as a continuing primary focus of identity when conflict arises. For Peil, then, political change will be through a syncretic Nigerian society (to be distinguished from a Kuper and Smith "plural" society). As its goal, she identifies "a national society where cultural diversity has an accepted but subordinate role".

Lists of these conclusions has been overtaken by the events of July 1975, and February 1976, in Nigeria. The Federal Military Government as well as all students of Nigerian politics would do well to study them, for many of the answers given by the people of Nigeria relate to the very issues that brought down the First Republic and helped to undo the Gowon regime.

A. H. M. Kirk-Greene

Instant history

The British General Election of October 1974
by David Butler and Dennis Kavanagh
Macmillan, £10.00
SBN 333 18053 4

The Nuffield series of election studies is intended to provide what its authors call "instant history"—speedy publication of a comprehensive, unbiased and demythologized account of each General Election.

The latest book describes how the three main parties devised and published their English manifestos. Public opinion polls published during the campaign are reviewed and so are those secret polls done by Opinion Research Centre (ORC) and Marplan and Opinion Research International (MORI) for the Conservative and Labour campaign committees. Two chapters analyse the results of a postal questionnaire on candidates' backgrounds and attitudes. Martin Harrison contributes a chapter on TV coverage of the campaign, Colin Seymour-Ure describes the press treatment and Michael Steed once again provides an incredibly detailed analysis of the constituency election results.

There is an enormous amount of useful reference material in the book ranging from voting results and census descriptions of every constituency through the tables of candidates' attitudes and an issue-by-issue comparison of the party manifestos to a description of significant political events between February and October.

Coalition dominates the narrative. According to Butler and Kavanagh the Liberals were caught between their hopes of sufficient seats to hold a balance of power in Parliament and their complete disagreement about what to do with such power. Conservative hopes also centred on something very like but not quite the same as coalition—the so-called Government of National Unity. Their problem was that Heath could not be persuaded to make the "supreme sacrifice" of declaring his willingness to serve in a GNU as a subordinate if his leadership was unacceptable to non-Conservatives. And such a sacrifice was necessary for the GNU proposal to attract sufficient votes to win the election.

To my surprise neither the Conservative strategists nor the Nuffield analysts appear to have considered the classic Conservative device which was so successful between the wars. Nominal leadership of the GNU and the use of No 10 could have been offered to someone outside the Conservative party leaving Heath as Conservative leader and so as controller of government. Butler and Kavanagh account seems to imply that the spontaneous sacrifice of party government leadership was a take-or-nothing decision.

The Nuffield series succeeds in avoid caricature. The data, at the time, objective description. In times of rapid political change there is a danger that such studies may be constrained in format to be similar to each other even when the elections are quite unlike.

By October 1974, it not only was no longer obvious that a General Election existed to bring more than a purely ritualistic sense. The Irish campaign was largely self-contained and it can be argued that the same was true for Scotland. Not only were the voting results different from those in England but so were the issues, read, the TV viewed, the issues debated and not. Least did they relate to commitments. With rather more difficulty it could also be argued that there was a Welsh election and possibly even a Scottish English election. So references to local decisions make an essentially British election story do not add up to accurate descriptions of these other elections.

Perhaps it was not so much that the election was still fought on general issues with only minor deviations. But the Nuffield book does not put the question, nor does not give an answer, to the question in part because Nuffield studies began when British elections were quite one general and general and the London orientation has continued. But the main reason the question is not put is the study is organized as a narrative, not as an attempt to offer answer some sort of hypothesis about the election.

The Nuffield study is a good dry book on the election, well but not sufficient. As a record of events and as a source of factual information and description it has no rival there remains the need for a thematic as well as a narrative account. Although this lacuna in the series includes two chapters on analysis, much of the ground taken up with reports of the strategists' post-mortem evaluations of their campaigns. More analysis by the authors would be welcome but perhaps that would delay publication of the basic factual and narrative information which readers want as soon as possible after the election.

W. L. M.

BOOKS

The purposes of political study

Studies in Politics: Essays to Mark the 25th anniversary of the Political Studies Association
edited by F. F. Ridley
Clarendon Press: Oxford University Press, £6.25
ISBN 0 19 827410 6

The study of politics in Britain, like its practice, has been dominated by the University of Oxford. This volume of essays commemorates that dominance. It is a fitting tribute, epitaph perhaps, eclectic in content, diverse in style, modest in its academic claims, courteously concerned for good government and social justice, and, for the most part, agreeably written.

The volume is a hard-covered edition of a special issue of the association's journal. The editor claims that the volume is "more than a haphazard collection of articles". It includes "essays on broad topics", not articles "based upon research projects of a narrower sort. To that extent this volume deliberately excludes much of the sort of work that British political scientists are doing". The admission does not wholly disarm the critic; the exclusion is substantial.

There are other ways in which the collection is unrepresentative. Foreign governments and comparative politics are neglected, there is only one piece on international relations and none on the former British territories; political sociology is not to be found. The selectivity of the collection is no doubt unavoidable. In 1951 the Political Studies Association had just 100 members, now there are 700. In the last 10 years postgraduate awards in political science have trebled in number. It is no longer possible for a modern historian to become "a well-accepted teacher of politics" by reading a dozen or so standard works and taking an interest in contemporary affairs. Thus, the disparate nature of these essays reflects the nature of contemporary political studies.

Even so two qualities of British political writing and scholarship can be discerned here. First, there is a lively awareness of the inadequacies of the vocabulary we use to discuss politics. At least three pieces (Oakeshott, Finer, Moodie) take vocabulary as a central theme, and the editor's own essay shows how an apparently straightforward term like "institution" is rarely defined with sharpness or consistency.

A second feature of British political studies is the resistance to that political science in which all is system, methodology and quantification. British politicists have survived the behavioural revolution for whatever it was) not by ignoring or defying it, but by incorporating it into the established tradition. There is an obvious analogy with British politics. Perhaps it is not surprising that the academics should have learned from their subjects the art of edging forward while looking backwards.

The editor chose not to seek out reports on "the state of the discipline", but some points of view are directly stated if not fully worked out. Two or three contributions emphasize the virtues of the study of institutions. Ridley and Johnson both emphasize the relationship of that pursuit to the study of values. Institutions are "ideas about government translated into formal arrangements"; "the purpose of description [of institutions] is to test practice against intention", says Ridley.

Besides this proper seeking-out of the major purposes of the study of politics, there is some recognition that the most obvious purpose lies in the education of undergraduates. There is some doubt expressed about the validity of studying and teaching an activity of which there is so little practical experience, among teachers as well as taught. There are better-founded doubts about the standing of political studies. Is anyone listening? Yes, answers Professor Blondel; in effect we listen to ourselves. The Warden of Nuffield writes: "Within the world of scholarship I doubt whether we rank very high.... Our professional services are not greatly in demand except in new countries and by the mass media and . . . are not recognised as giving us claims to speak with special authority . . .".

Such self-critical candour is rare in professionals and wholly creditable. But this collection of papers encourages greater confidence, not least when the writers turn from questioning the politicist to questioning the politician. After 25 years, political studies may be in sight of maturity.

P. J. Madgwick

Reviewers

Malcolm Anderson is professor of politics at the University of Warwick; he is author of Government in France and Conservative Politics in France;
H. M. Drucker lectures in politics at the University of Edinburgh and is author of The Political Uses of Ideology;
D. K. Fieldhouse has published The Theory of Capitalist Imperialism and Empire and Imperialism; he is Beit lecturer in Commonwealth history at the University of Oxford and a fellow of Nuffield College;
Peter Morris is visiting professor at Boston University and author of Loss and Change and Widows and their Families;
D. C. Robinson is a lecturer in applied mathematics at King's College, London;
C. R. W. Spedding is professor of agricultural systems and head of department of agriculture and horticulture at the University of Reading; he is author of Grassland Ecology and The Biology of Agricultural Systems.

Will they soldier on?

The Military and the Problem of Legitimacy
edited by Gwyn Harries-Jenkins and Jacques van Doorn
Sage, £6.00 and £3.00
ISBN 0 8039 9957 7 and 9964 X

The Soldier and Social Change
by Jacques van Doorn
Sage, £7.50
ISBN 8039 9948 8

Are standing forces still acceptable to western public opinion? If they are, is anything undermining such acceptability? Quite a lot of things, reply the authors in these two collections: as the western states retreat from mass conscript armies, so citizenship becomes dissociated from military service. Again, as such armies are replaced by regular professional forces, the line between military and society becomes sharper. The general conservatism of the armed forces opens an ideological gap between them and the host society. Tendencies like these, suggest the authors, raise the questions of the public acceptability of what the military does, the way it does it, and even the desirability of maintaining institutionalized armed forces.

The Military and the Problem of Legitimacy, which raises and attempts to answer such questions, is a selection of papers submitted to the Research Committee on Armed Forces and Society at the latest (1974) Congress of Sociology, continuing a tradition of publishing such collections after each such congress since the committee was first set up in 1964. The two co-editors have contributed a useful introduction, though, by somewhat Procrustean methods, they have contrived to make these disparate essays appear to be more interconnected than perhaps they really are. Furthermore their individual papers (Van Doorn on "The Military and the Crisis of Legitimacy" and Harries-Jenkins on "Legitimacy and the Problem of Order") provide admirable maps of the territory that has to be explored. Unhappily, few of the contributors rise to the challenge. John Brown (the pseudonym of a so-called "distinguished European Academic") gets off on the wrong foot and never gets right again by putting civil military relations in France, and perhaps less arguably in Italy, on the same footing as in Portugal and Spain. The main value of the paper derives from some interesting tables and information regarding the military and paramilitary forces in contemporary Spain.

Professor Janowitz's paper on *Military Institution and Citizenship in Western Societies* is really making a somewhat neglected but highly important point: "One man, one gun, one vote", to use the Swedish maxim. But the essay is far too condensed to cover the immense historical span it surveys without generating a number of apparent qualifications and even inconsistencies which detract from its cogency.

Professor Nagy's paper on mass communication and the specialization of the Hungarian armed forces is anodyne and uninformative, while Professor Kourvotaris, of Northern Illinois University, is incapable of writing English that is intelligible, let alone euphonious. Furthermore, although his piece includes a highly informative table on the background of the Greek officer-cadets, he fails to bring out some of its more striking features; for instance the fact that most of the cadets derive from lower-income families, and, also, from outside the capital city. Under the military regime they described themselves as "sons of the countryside", and this provenance goes a long way to explaining the social policy carried out by the military junta. Taking it as a whole, this volume is a facile exercise in instant-book production. It would have been vastly better if only a half dozen of the most cogent essays had been selected, and their authors given the opportunity to expand on them and line them up with the others in the collection.

The Soldier and Social Change, like the foregoing, is also a collection of essays but they all come from the same hand: that of Jacques van Doorn, professor of sociology at the Erasmus University of Rotterdam, and an indefatigable army-watcher. There are two valuable essays on the Dutch Army's experiences in Indonesia, as well as some stimulating essays on the emergence of the modern military, and on the alleged "decline of the mass army" in the western countries. On the other hand, it contains some suggestions which I find somewhat puzzling. For instance van Doorn argues that Weber's famous postulate of a relationship between Protestantism and the work-ethic can be applied, not only to capitalism, but to the emergence of the modern army: adducing as evidence that the first disciplined, self-sacrificial and regular armies, in the sixteenth (sic) and seventeenth centuries were all "in Protestant countries". Considering that it was the Spanish *tercio* which dominated land fighting in Europe for an entire century until Rocroi in 1643, I find this suggestion astonishing.

More important, however, is van Doorn's insistence that the mass army has had its day. For one thing, she begs the most important question as to why the mass army is being abandoned in the West, but still thrives in the East. Furthermore, following the new Nato appreciation that the mass armies of the Warsaw Pact countries are capable of overrunning Western Europe in 48 hours, the reports of the demise of the mass army in the West are, if not premature, at least greatly exaggerated.

S. E. Finer

BOOKS

Passengers from India

Separate and Unequal: India and the Indians in the British Commonwealth 1920-1950
by Hugh Tinker
C. Hurst, £9.00
ISBN 0 903983 31 1

Professor Tinker has written a sequel to *A New System of Slavery*, which described the emigration of Indians, mostly under indenture, during the period 1830-1920. Both volumes are infused with the same moral indignation at the treatment Indians received. The root cause of their abuse is here described as British imperialism whose "driving force" was "the motive of exploitation". Its agents were much the same before and after 1920: in Britain successive generations of Colonial Secretaries and permanent officials who defeated attempts by Indian nationalists, humanitarians and even the India Office to intervene on behalf of the emigrants; in the colonies, the plantation owners who wanted cheap, docile labour, officials who connived at abuses, white settlers who feared Indian competition and indigenous nationalists who resented their presence. Few indeed escape censure and power almost invariably corrupts: Creech Jones, for example, is on the side of the angels in the 1930s and early 1940s, but falls from grace once he becomes Colonial Secretary.

Despite this continuity of approach, there are major differences between the two books. The first had a coherent and finite theme—the origins, growth and eventual abolition of indentured emigration—but it is difficult to see any such logical pattern in its successor. The underlying argument is clear enough. Once Indians had been duped into emigrating, they had a moral claim to full equality of status and opportunity in the countries where they had settled. This they never received. In South Africa, which is given the greatest attention, they were gradually relegated to second-class status, somewhere above the Africans but well below the whites. The same was true in Kenya until its independence. In Ceylon the British connived at the determination of Sinhalese politicians to avoid giving the Tamil population full citizenship and in Burma independence left Indians as an alien and unprotected minority. In other British possessions independence and the final outcome lie beyond the time-scale of this book (to be dealt with in its successor), but in these also Indians typically failed to receive the support they looked for from the imperial authorities. The only gleam of hope in the whole story came in 1949 when the British Nationality Act provided equal status as citizens of the United Kingdom and colonies for all Indians in the remaining dependencies, and India was admitted to the Commonwealth as a republic; and even this nominal equality also the shadow of later British control of immigration lies long.

The weakness of this story lies not in the facts, which are for the most part undeniable, but in the way in which they are told and the assumptions which underlie the narrative. The book is weak both structurally and conceptually because in fact there is no unity of theme: there is really no common denominator between the experience of Indians in all these territories or in the forces which determined their fate. Tinker tries to pull it all together by insisting that, because he is describing events in territories which technically formed part of the British Empire and Commonwealth, responsibility for Indian misfortunes lay with Britain. This is unrealistic. It was never remotely possible after 1919 that Indians could have forced the Canadians to give Indians [illegible] equality with whites, [illegible] they might have attempted [illegible] in Kenya or Southern [illegible] but since the Colonial Office never able to impose its will [illegible] white settlers of these colonies on any important question [illegible] was in fact not a practical [illegible] British power depended [illegible] collaboration from the [illegible] elites, and there was [illegible] possibility of imposing a system of racial equality [illegible] societies. Conversely in colonies such as Fiji British [illegible] felt a moral obligation [illegible] the "weaker" indigenous [illegible] against what they [illegible] the threat of Indian [illegible]. Thus there were different [illegible] for the grievances [illegible] in every country and [illegible] "overview" this book [illegible] a single story out of [illegible] result it lacks shape [illegible] rates into a loose [illegible] lated events throughout [illegible] and Commonwealth [illegible] a chronological [illegible] described blow by blow [illegible] patch after dispatch [illegible] material should be restructured, possibly along lines, and also greatly [illegible] so that within its 400 [illegible] author could have [illegible] down to its intended end [illegible] the 1970s. As it stands [illegible] historical tract rather [illegible] balanced study. It contains [illegible] of useful evidence, much [illegible] published before, and [illegible] be valuable to students [illegible] mutual divisions in the British possessions. [illegible] study of the British [illegible] perial role", to use the [illegible] description, it must be [illegible] many reservations.

D. K. Fieldhouse

Père de la Victoire

The Tiger: The Life of Georges Clemenceau, 1841-1929
by Edgar Holt
Hamish Hamilton, £8.50
SBN 241 89294 5

Biography is a difficult art because there are few subjects about which it is possible to have such endless disputes as assessments of character. People present different appearances in different roles. Clemenceau is a more difficult subject than most for the biographer because he played so many roles in a long lifetime. Born during the July monarchy of 1841, he died in the year of the Wall Street crash. He was involved in the Paris Commune as mayor of Montmartre, an opposition parliamentarian of the front rank in the 1880s and a leading campaigner for the revision of the Dreyfus case. But it was not until 1906 at the age of 65 that he assumed office for the first time as Minister of Interior; soon afterwards he became Prime Minister. Finally he became a legend in his own lifetime as Père de la Victoire for his premiership in the years 1917 to 1919. He was first and foremost a politician but the range of his other activities is impressive: he was a journalist who founded four newspapers; his writings range through fiction, philosophy, biography and travel to many volumes of political writings; he liked the theatre and opera; he was a connoisseur of painting and a friend of Monet; he enjoyed the company of women even in his great old age.

There is much to be said about Clemenceau and a definitive biography would have to be on the scale of Monypenny and Buckle's life of Disraeli. Given the paucity of Clemenceau papers available to scholars, such an enterprise would present difficulties but, as David Watson showed in his excellent political biography of Clemenceau published two years ago, there are many other rich sources about most aspects of Clemenceau's activities. There is, however, another defensible approach to the writing of Clemenceau's biography. This is the approach of Monnet's compelling portrait of Clemenceau in the Louvre, which attempts to capture the essence of the man with bold brush strokes, ignoring minor details and the implications of some of his features. Edgar Holt's fluent biography is in this style. It is not a detailed scholarly account but an attempt at a well-rounded portrait of Clemenceau in his public and private roles. Inevitably Holt relies heavily on the scholars, journalists and politicians who have written about Clemenceau.

His main achievement is to give a convincing impression of Clemenceau's intelligence and force of character, the qualities his contemporaries most admired. The handling of his private life is especially good. Holt has sifted the gossip and the evidence about Clemenceau's relationships with women and gives a perceptive and plausible account of them.

His unsuccessful marriage contrasts with the warmth and consideration which he showed in some of his other liaisons. There is a slight tendency to be over-sympathetic to Clemenceau in the account of the highly unedifying way in which he ended his marriage. This tendency, very common among biographers, can also be noted elsewhere. There may be more to the charges made by his enemies of authoritarianism, brutality, opportunism and impulsiveness than Holt is prepared to allow. The rough edge of Clemenceau's tongue is, of course, very amusing, but he was an excessively domineering man who savaged enemies and collaborators alike.

This is, however, a highly successful popular biography. It is a considerable achievement to write within the confines of 300 pages a biography which attempts to be comprehensive, is comprehensible to the reader with little knowledge of the period or the French political system and which does not irritate the specialist with errors of fact and crude over-simplifications.

Malcolm Anderson

Classified Advertisements

Index to Appointments Vacant, Wanted and other classifications

Universities

The British Council

Invites applications for the following posts:

Reader in English Literature (Poland)
University of Lodz
Good honours degree; research experience; preferably doctorate and published works.
Salary: £6,429-£8,141 p.a.
Benefits: overseas allowances. One-year contract, renewable. 76 CU 28

Lecturer in English Language (Romania)
Alexandru Ioan Cuza University, Iasi
Candidates should be British nationals, preferably single, with a degree from a university in Britain and relevant TEFL experience. A formal TEFL qualification is desirable.
Salary: 3,500 lei per month tax free, plus sterling subsidy of £1,787 p.a. paid in Britain.
Benefits: free accommodation; medical treatment; employers' portion of superannuation. Contract for one academic year (10 months), renewable. 76 SU 21

Lecturers in English (Saudi Arabia)
Faculty of Medicine, University of Riyadh
Candidates (2 male, 2 female) must have a degree and a diploma or experience in TEFL.
Salary: Saudi Riyals 36,880 p.a. minimum (£5,760 at current rate). No local tax.
Benefits: free accommodation. One-year contract, renewable. 76 AU 24-27

Return fares are paid. Local contracts are guaranteed by the British Council.
Please write briefly stating qualifications and length of appropriate experience; quote relevant reference number and title of post for further details and an application form to The British Council (Appointments), 65 Davies Street, London W1Y 2AA.

ST. HUGH'S COLLEGE, OXFORD

Lectureship in Politics

Applications invited for Lectureship in Politics from 1st October, 1976
Appointment open to men and women
Further details from the Principal
Applications to be received by 24th April

AUSTRALIA
JAMES COOK UNIVERSITY OF NORTH QUEENSLAND
CHAIR OF ENGLISH
Applications are invited for Appointment to a Chair in English at James Cook University. The Chair will become vacant on 31 December, 1976. Upon the retirement of Professor Foundation Professor of English, Professor Colin Roderick.
The appointment is not tied to any specialty in areas within the field of English, including literature and literary and research qualifications in one or more of these areas are appropriate. However, it is considered that the appointee will direct and sponsor the foundation of the Australian Studies Institute established within the Department of English.
Salary: $AUD.[illegible] per annum (or a maximum for a married man of $AUD[illegible] per annum for a married woman).
Information on conditions of appointment and application forms are available from the Association of Commonwealth Universities (Appts.), Marlborough House, Pall Mall, London SW1Y 5HX.
Applications close on [illegible] July 1976.

AUSTRALIA
UNIVERSITY OF QUEENSLAND AND BUSINESS FINANCE
The University invites applications for a Chair of Accounting and Business Finance in the Department of Commerce. Vacant following the retirement of Professor R. Ball to the Foundation Professorship of Applied Accounting in the Australian Graduate School of Management.
Applicants should have high academic qualifications, appropriate experience and a distinguished research record. It is desirable that the appointee should be capable of conducting and directing quantitative research, preferably in modern business finance, the application to accounting or the application of informed analysis in financial or managerial accounting.
The salary for a Professor is $AUD[illegible] per annum. The University provides prescribed travelling and removal expenses, superannuation, study leave and housing assistance.
Additional information and application forms are available from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.
Applications close on [illegible] July 1976.

NATIONAL UNIVERSITY OF IRELAND
ST PATRICK'S COLLEGE, DRUMCONDRA, DUBLIN 9
Applications are invited for the position of

HEAD of EDUCATION DEPARTMENT

Applicants should have an appropriate postgraduate qualification with relevant experience.
This is an expanding education department engaged at undergraduate (Bachelor of Education) and postgraduate level in the education of teachers.
Salary Scale:
Married Men — £6,090-£7,205
Women and Single men — £5,771-£6,781
The person appointed may be placed on an intermediate point on the scale.
Applications are also invited for the following new positions in the Education Department: LECTURERS/ASSISTANT LECTURERS IN EDUCATION in the following areas:
(i) Curriculum Theory and Development. (Applicants should have a qualification in curriculum at the theoretical level, together with a qualification in a subject taught in primary schools.)
(ii) Curriculum Studies, with special reference to Junior Classes in primary schools.
Postgradute qualification (or equivalent) and teaching experience required.
Salary Scale:
Lecturer: Married Men — £4,554-£6,264
Women and Single Men — £4,411-£5,858
Assistant Lecturer: Married Men — £4,041-£5,760
Women and Single Men — £3,985-£5,392
Successful candidates will be appointed Lecturer or Assistant Lecturer according to qualifications and experience. They may be placed at an intermediate point on the scale.
Further particulars for all appointments may be had on application to the Appointments Secretary but no application forms are supplied.
All applications together with curriculum vitae and the names of three referees should reach the Appointments Secretary not later than Thursday, April 29th 1976.

RU leiden

At the UNIVERSITY of LEIDEN, the Netherlands, applications are invited for the post of

LECTURER in ENGLISH

tenable from 1 September, 1976, at the latest. The person appointed will be expected to teach and help in organizing language laboratory classes at various levels.

Applicants should indicate what other area of modern language studies (e.g., syntax, phonology, semantics) they are qualified to teach, and state research interests. All tuition is in English but foreign staff-members are required to learn Dutch within a reasonable period, and a prior knowledge of the Dutch language will be an added recommendation.

The appointment is annually renewable for a period of four years, after which the department may recommend tenure.

The initial salary will be within the range of Dfl. 2890- to Dfl. 6253,—gross per month depending on qualifications and experience.

Further information about the post may be obtained from the secretary to the English Department, Rapenburg 60, Leiden, Holland.

Applications accompanied by a curriculum vitae and the names of at least two referees should be submitted within 14 days of the appearance of this advertisement to the Dienst Personele ah Welzijnszaken, Rijksuniversiteit, Stationsweg 46, Leiden, Holland, referring to vacancy nr. 76.139.

University of Nairobi-Kenya
Faculty of Commerce

WE NEED

Persons wanting to become part of an education/research participation programme. Persons who are interested in issues of developing countries. Persons who will help develop courses in Management Science, Advanced Accounting, Organisational Theory and Behavioural Science.

WE ARE

A faculty including departments of business administration, accounting and management science. A developing faculty of commerce focused upon and serving East Africa. Utilising projects with varied environmental and social conditions. Co-operating with Government and local industry. Using links with Canadian and British Faculties.

WE OFFER

3 vacant full time teaching positions at up to professorial level (KE4300-5100; KE1 = £1.19 stg).
Other benefits. Possible British Government salary supplementation (under review) of about £3,800 stg (married) or about £2,750 stg (single) p.a. Home-based assignments at the Universities of Edinburgh, Lancaster, and Sussex.

WRITE TO

Inter-University Council for Higher Education Overseas, 90/91 Tottenham Court Road, London W1P 0DT for further particulars of these appointments and details of link arrangements with the UK universities.

UNIVERSITY OF DAR ES SALAAM—TANZANIA

Applications are invited for the post of

SENIOR LECTURER/ LECTURER IN FOREIGN LANGUAGES AND LINGUISTICS

Applicants should possess a good first degree in Modern Languages or Linguistics with African Languages; a postgraduate qualification in General or African Linguistics, specialising in Bantu languages, with an interest in the comparative/historical linguistics of Africa; experience in teaching Transformational Generative and general linguistics theory (phonology, morphology, syntax); have an interest in studying and working on research projects on the nature and distribution Tanzanian languages. A knowledge of Swahili would be an advantage. Appointee will be expected to help in the instruction in basic linguistic theory, of Tanzanians who are being trained as teachers of English and French as foreign languages and to teach and supervise M.A. and Ph.D. programmes in language and linguistics.
Salary Scales: Senior Lecturer, £22,650-£25,622 p.a. (£1 = £1.19 sterling). The Irish Government also supplement salary in range £2,322-£2,622 p.a. (sterling) for married bachelors (£1,674-£1,974 p.a. (sterling) for single appointee (normally free of all tax) and provide children's education allowances and holiday visit passages. F.$600; Family passages; biennial overseas leave.
Detailed applications (2 copies), including a curriculum vitae and naming 3 referees, should be sent by air mail, not later than 7th May, 1976 to the Chief Academic Officer, University of Dar es Salaam, P.O. Box 35061, Dar es Salaam, Tanzania. Applicants resident in UK should also send one copy c/o Inter-University Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.
Applications close on [illegible] 30, 1976.

University of Wales UWIST

LECTURERS
Salary Scale £3,174 to £6,446

CIVIL ENGINEERING (Geotechnics)
Starting Salary to £4602 for suitably qualified candidate

OPTOMETRY
Starting Salary to £4184 for suitably qualified candidate

Requests (quoting Ref. THES) for details and application forms to Personnel Section, UWIST, Cardiff CF1 3NU

Closing Date: April 30 1976

AUSTRALIA
JAMES COOK UNIVERSITY OF NORTH QUEENSLAND
SENIOR TUTOR (SOCIAL WORK)
DEPARTMENT OF BEHAVIOURAL SCIENCES
An applicant should have a Bachelor's degree (LL.B. preferred) (or a postgraduate diploma) and extensive experience in a professional social work capacity to lecture in social work courses. It is also desirable that the appointee will teach in the Bachelor of Behavioural Science degree programme, which includes the new social work training programme of the Department of Behavioural Sciences.
Salary range: $AU11,135 to $AU13,535 pa. Applicants receiving allowance of $AU[illegible] pa for a married male or $AU[illegible] per annum for a single applicant.
Information on conditions of appointment and application procedure available from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.
Applications close on [illegible] 30, 1976.

Universities continued

THE ROYAL UNIVERSITY OF MALTA

Applications are invited for the

CHAIR OF MATHEMATICS

which will become vacant at the end of the current academic year, through the retirement of the present Professor of Mathematics. The appointee will be expected to be in possession of suitable qualifications, and importance will be attached to his teaching and research experience. He will be responsible for lecturing and/or tutorial work for the whole or parts of the Mathematics content of the degree courses of the University. He will also be required to pursue research work in a mathematical field. The main research interests of the Department are in the fields of Theoretical Applied Mathematics and Quantum Mechanics, Combinatorial Theory, Computer Science, Complex Function Theory.

Salary scale: £M3,465-£M4,018 p.a. (£1 sterling—£M0.80). Additions to the salary will, where appropriate, be considered for a well-qualified appointee. In addition, a cost-of-living increase of £M5.25 net per week will be paid. FSSU. Family passages.

Detailed applications (6 copies) including a curriculum vitae and naming 3 referees should be sent to the Registrar, Royal University of Malta, Msida, Malta, by 7 May, 1976. Applicants resident in UK should also send a copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT.

Further particulars may be obtained from either address.

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the post of

ASSOCIATE PROFESSOR/ SENIOR LECTURER/ LECTURER IN ORGANIC CHEMISTRY

tenable from 1st September, 1976.

The appointee would be expected to give courses to general and honours degree levels in three or more of the following topics: the Chemistry of Natural Products, Structural Organic Chemistry, Stereochemistry, Organic Reaction Mechanisms, Classical Organic Chemistry. At the Associate Professor level, candidates should have considerable experience in teaching and research at University level, should have made a significant contribution to the advancement of the subject, and should be able to give leadership in teaching and research. At the Senior Lecturer level, candidates should normally have had at least five years of University experience in teaching and research and should have made a reasonable contribution to the advancement of the subject in his/her field.

Salary scales: Associate Professor: Le6,300 p.a.; Senior Lecturer Le5,070-Le6,170 p.a.; Lecturer Le2,910-Le5,430 p.a. (£1 sterling=Le 2). The British Government may supplement salary in range £2,358-£3,804 p.a. (sterling) for married appointee or £960-£2,400 p.a. (sterling) for single appointee (supplement normally free of all tax), and provide children's education allowances and holiday visit passages. FSSU. Family passages; various allowances; regular overseas leave.

Detailed applications (2 copies), including a curriculum vitae and naming 3 referees should be sent by airmail, not later than 7 May, 1976, to the Secretary, University of Sierra Leone, Private Mail Bag, Freetown, Sierra Leone. Applicants resident in UK should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further particulars may be obtained from either address.

CARDIFF
UNIVERSITY COLLEGE
FACULTY OF ARTS
TUTORIAL FELLOWSHIP

Applications are invited for a Tutorial Fellowship in either the Department of History or the Department of English. The successful candidate will be expected to undertake research work leading to the degree of Ph.D. Duties will include a certain amount of lecturing and supervision as directed by the Head of Department. The appointment on the scale £2,700 [illegible] £3,174 will be effective from October, 1976, for a period of three years. Applications [illegible]

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the post of

PROFESSOR OF HISTORY

tenable from 1st September, 1976. Candidates should be qualified to teach the following fields to Honours and General Degree level—West African History with special reference to the History of Sierra Leone or the Upper Guinea Coast; European, British or American History.

Salary scale: Le6,800-Le7,500 p.a. (£1 sterling—Le 2). The British Government may supplement salary by £4,164 p.a. (sterling) for married appointee or £2,768 p.a. (sterling) for single appointee (supplement normally free of all tax), and provide children's education allowances and holiday visit passages. FSSU. Family passages; various allowances; regular overseas leave.

Detailed applications (2 copies), including a curriculum vitae and naming 3 referees, should be sent by airmail, not later than 7 May, 1976, to the Secretary, University of Sierra Leone, Private Mail Bag, Freetown, Sierra Leone. Applicants resident in UK should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further particulars may be obtained from either address.

UNIVERSITY OF DAR ES SALAAM— TANZANIA

Applications are invited for

SENIOR LECTURESHIP/ LECTURESHIP IN GEOGRAPHY

Applicants must have commitment to the Geography of Underdevelopment and preferably background in rural/regional planning in the Third World and a Ph.D. or equivalent. Teaching experience, especially at graduate level necessary. Duties will include a major role in the M.A. programme.

Salary Scales: Senior Lecturer, T£2,632-T£3,052 p.a.; Lecturer, T£2,150-T£2,570 p.a. (T£1=£1.19 sterling). The British Government may supplement salary by £2,292-£2,622 p.a. (sterling) for married appointee or £1,428-£1,674 p.a. (sterling) for single appointee (normally free of all tax) and provide children's education allowances and holiday visit passages. FSSU: Family passages; biennial overseas leave.

Detailed applications (2 copies), including a curriculum vitae and naming 3 referees, should be sent by air mail, not later than 7th May, 1976 to the Chief Academic Officer, University of Dar es Salaam, P.O. Box 35091, Dar es Salaam, Tanzania. Applicants resident in UK should also send one copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further particulars may be obtained from either address.

UNIVERSITY OF KHARTOUM—SUDAN

Applications are invited for

LECTURESHIP IN PRIVATE LAW

Salary scale: £S1,600-£S2,400 pa (£1 sterling=£S0.69). Family passages; various allowances; superannuation scheme; annual overseas leave. Detailed applications (2 copies), including a curriculum vitae and naming 3 referees, should be sent by air mail, not later than 16 April 1976, to the Personnel Secretary, University of Khartoum, PO Box 321, Khartoum, Sudan. Applicants resident in UK should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further particulars may be obtained from either address.

BATH
THE UNIVERSITY
SCHOOL OF BIOLOGICAL SCIENCES

Applications are invited from good honours GRADUATES, or from those expecting to graduate in 1976, for a Science Research Council C.A.S.E. studentship for research on the surface chemistry and colloid reactions of clay minerals. The value of the award, tenable for three years, is as for S.R.C. [illegible]

UNIVERSITY OF THE WEST INDIES TRINIDAD.

Applications are invited for the post of

BURSAR

The Bursar will be responsible for all the accounting work including the preparation of the annual financial statements and estimates and will also be expected to advise on financial aspects of the administration of the Campus. Applicants should be members of a recognised professional body of accountants and have practical experience of budgetary control, marginal costing and inventory control systems, including the application of modern accounting techniques. A University degree although not essential, will be an advantage.

Salary scale: 1975/76: TT$31,872-$39,364 p.a. FSSU. Unfurnished accommodation at a rental of 10% of salary or a housing allowance of 20% of pensionable salary. Family passages. Study and Travel Grant.

Detailed applications (six copies) giving full particulars of qualifications and experience, date of birth, marital status and the names and addresses of three referees should be sent as soon as possible to the Secretary, University of the West Indies, St. Augustine, Trinidad. Further particulars of the post will be sent to all applicants.

AUSTRALIA
AUSTRALIAN NATIONAL UNIVERSITY
RESEARCH SCHOOL OF PACIFIC STUDIES

Applications are invited for appointment to the following:

FELLOW: DEPARTMENT OF PACIFIC AND SOUTHEAST ASIAN HISTORY

Applications are invited from scholars with a specialist competence in Papua New Guinea. Further information about the department may be obtained from the Head, Professor G. Daws, in the University.

Closing date: May 14, 1976.

SENIOR RESEARCH FELLOW/ RESEARCH FELLOW CONTEMPORARY CHINA CENTRE

Appointment will be from early 1977. The Centre comprises over 20 members of various departments of the university, who are carrying out work on contemporary and modern China.

The successful applicant will be expected to undertake research on the internal politics of post-1949 China.

Closing date: May 31, 1976.

Salaries: Salary on appointment to the posts will be in accordance with qualifications and experience within the ranges: Fellow, $A15,182 to $A20,404 per annum; Senior Research Fellow, $A18,382 to $A21,336 per annum; Research Fellow, $A12,834 to $A17,113 per annum.

Other conditions.—Tenure: Fellow for five years in the first instance with possibility of extension to retiring age; Senior Research Fellow and Research Fellow normally for three years in the first instance with possibility of extension to five years.

Reasonable travel expenses are paid. Superannuation benefits are available.

The university reserves the right not to make an appointment or to make an appointment by invitation at any time. Prospective applicants should obtain the further particulars from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, before applying.

AUSTRALIA
UNIVERSITY OF SYDNEY
McCAUGHEY CHAIR OF BIOCHEMISTRY

Applications are invited for the McCaughey Chair of Biochemistry which will become vacant on the retirement of Professor J. L. Still at the end of 1976. The occupant of the other Chair of Biochemistry within the Department of Biochemistry is Professor K. W. Taylor who is a biochemist with interests in endocrinology.

Salary will be at the rate of $A26,055 per annum.

A statement of Conditions of Appointment and Information for Candidates may be obtained either from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, or from the Registrar, University of Sydney, N.S.W. 2006, Australia, with whom applications close on 31 May, 1976.

DUBLIN
UNIVERSITY COLLEGE

Applications are invited by the Governing Body of the College for the following full-time statutory post:—

PROFESSORSHIP OF ITALIAN

Prior to application, further information (including application procedure) should be obtained from: J. P. MacHale, Secretary and Bursar, University College, Belfield, Dublin 4, Ireland. Telephone: 693244 Ext 431.

The latest date for receipt of completed applications is: Friday, 11th June, 1976.

CANADA
UNIVERSITY OF ALBERTA
DEPARTMENT OF ENGLISH

Applications are invited from men and women for possible openings in the DEPARTMENT OF ENGLISH, beginning 1st July 1976. Rank and salary according to qualifications and experience; all areas of specialization considered.

1975-76 salary floors (under review) are Assistant Professor $15,184; Associate Professor $19,720; Full Professor $26,960.

Please send curriculum vitae and names and addresses of three referees as soon as possible to the Chairman, Department of English, University of Alberta, Edmonton, Canada, T6G 2E5.

BRADFORD
THE UNIVERSITY
M.A. BY ADVANCED STUDY IN YUGOSLAV STUDIES

Applications are invited from STUDENTS who hold or who expect to obtain a first degree in SOCIAL SCIENCES, SLAVONIC STUDIES or AREA STUDIES. Students will combine study of social science subjects relating to Yugoslavia with language study in a formal taught course leading to examination. This will be followed by a field visit to Yugoslavia and the writing of a dissertation on an approved topic.

For further details of the course, write to the Secretary, Postgraduate School of Yugoslav Studies, University of Bradford, West Yorkshire BD7 1DP.

BELFAST
THE QUEEN'S UNIVERSITY
LECTURESHIP IN PSYCHOLOGY

Applications are invited for the post of Lecturer in Psychology, tenable from 1st September, 1976, or such other date as may be arranged. Applicants' research interests may be in any area of human psychology, such as social psychology, personality, developmental psychology or any branch of human experimental psychology.

Initial placing which will depend on experience and qualifications will be made at one of the first three points on the scale for lecturers: £3,174, £3,378, £3,582 rising to £6,447 with contributory pension rights under the S.S.S.U./U.S.S. The appointment will be subject to a period of probation of up to three years in duration. Assistance with removal expenses is available.

Applications should be received by 10th May, 1976. Further particulars may be obtained from the Personnel Officer, The Queen's University of Belfast, BT7 1NN, Northern Ireland. (Please quote Ref. 76/T.H.E.S.)

BIRMINGHAM
THE UNIVERSITY

Applications are invited for the post of

ADVISER and TUTOR in ENGLISH LANGUAGE to Overseas Students

from October 1, 1976. The Advisership will be associated with the University Senate's Committee on Overseas Affairs, the English Language work being under the academic oversight of the Professor of Modern English Language.

Candidates should be qualified as teachers in English as a foreign language and have experience in dealing with the problems of overseas students in institutions of higher education.

Salary, Lecturer scale, £3,174 to £6,446 per annum plus superannuation.

Applications (three copies), including curriculum vitae and naming three referees, should be sent by May 10, 1976, to Assistant Registrar (RS), University of Birmingham, Box 363, Birmingham B15 2TT, from whom further particulars may be obtained.

BRISTOL
THE UNIVERSITY
DEPARTMENT OF CLASSICS

Applications are invited for the following posts:

LECTURESHIP IN CLASSICS

Preference will be given to candidates with a specialist interest in Latin Literature, especially prose literature.

LECTURESHIP IN ARCHAEOLOGY

Preference will be given to candidates with a specialist interest in the Pre-History of Britain and Europe.

The Lectureships are tenable from 1st August, 1976, and the initial salaries will be within the range £3,174-£5,214 per annum.

Further particulars for both posts may be obtained from the Secretary, University of Bristol, Senate House, Bristol BS8 1TH, to whom applications including the names and addresses of three referees should be sent by 21st April, 1976 (please quote reference ED).

CAPE TOWN
THE UNIVERSITY
LECTURER IN GEOLOGY

Applications are invited for the above post, vacant as from 1st January, 1977. Appointment, according to qualifications and experience, will be made on the salary scale R6,300 by R360 to R10,180 per annum.

Preference may be given to applicants with experience in metamorphic petrology and/or economic geology, but applications are also invited from geologists with other research interests.

Applicants should submit a curriculum vitae, stating present salary, teaching and research experience, interests and publications, when available if appointed and the names and addresses of three referees.

Memoranda concerning the position and general conditions of service should be obtained from the Registrar, Room 1, University of Cape Town, Private Bag, Rondebosch, 7700, by whom applications must be received not later than 31st July 1976.

Appointment will be subject to a satisfactory medical examination. The University reserves the right to appoint a person other than one of the applicants or to make no appointment.

EDINBURGH
THE UNIVERSITY
SCIENCE STUDIES UNIT
POSTGRADUATE STUDENTSHIPS

Available for research in social and historical aspects of science and technology, including Appropriate Technology for the Third World.

Further details from Secretary, Science Studies Unit, 34 Buccleuch Place, Edinburgh EH8 9JT.

DURHAM
THE UNIVERSITY
DEPARTMENT OF MATHEMATICS

Applications are invited for the post of RESEARCH ASSISTANT to work on the development and comparison of numerical methods for solving a class of integrodifferential equations. Research experience in Numerical Analysis is desirable but applicants currently completing B.Sc. or M.Sc. courses in Mathematics will also be considered. The post is tenable for two years from 1 October, 1976, or earlier by arrangement.

Starting Salary in the range £2,766-£3,174 on National Research Range 1A or 1B depending upon qualifications, plus superannuation.

Applications (3 copies) naming three referees, should be sent by 30 April, 1976, to the Registrar and Secretary, Science Laboratories, South Road, Durham, DH1 3LE, from whom further particulars may be obtained.

EDINBURGH
THE UNIVERSITY
FACULTY OF MEDICINE
DEPARTMENT OF BIOCHEMISTRY
SENIOR LECTURER

Applications are invited for the post of SENIOR LECTURER which is tenable from October 1, 1976. The initial salary will be at a suitable point on the scale £6,234 to £7,743 per annum. Superannuation under F.S.S.U. or U.S.S.

The major duties of the Senior Lecturer will be to participate in teaching programmes for medical, dental or science students, and to engage in research.

Further particulars may be obtained from the Secretary to the University, Old College, South Bridge, Edinburgh EH8 9YL, with whom applications (8 copies) should be lodged not later than April 30, 1976. Please quote Reference 603.

EDINBURGH
THE UNIVERSITY
TEMPORARY POST IN BIOGEOGRAPHY

Applications are invited for a temporary post for 21 months, beginning on either 1st October, 1976, or 1st January, 1977. Candidates should have a broad knowledge of the field of Biogeography and a Higher Degree or equivalent experience in Soil Science. Research in the tropics, particularly in Latin America, would be an added advantage. Salary within the range of the Lecturer Scale £3,174 to £3,990.

Applications should be sent by 10th May, 1976, to the Secretary to the University, Old College, South Bridge, Edinburgh, EH8 9YL, from whom further particulars may be obtained. Please quote Reference 1010.

EXETER
THE UNIVERSITY
DEPARTMENT OF GEOGRAPHY
RESEARCH ASSISTANT

Applications are invited for the post of Research Assistant to Dr. K. J. Gregory from July 1, 1976 to September 30, 1977. Applicants should have, or expect to obtain, a good honours degree and to have studied Hydrology or Fluvial Geomorphology. Duties will include field surveys of river channels, data analysis and computing. Commencing salary £2,766.

Further particulars from the Administrative Officer (Staffing), University of Exeter, Exeter EX4 4QJ, to whom completed applications (three copies) with the names of two referees should be sent by April 30, 1976. Please quote reference 1/104/7108.

EAST ANGLIA
THE UNIVERSITY
Norwich
LECTURESHIP

In the School of Computing Studies tenable from October 1, 1976.

Preference will be given to candidates having appropriate qualifications and experience in Operational Research. The salary scale for Lecturers is at present £3,174 to £6,446. It is hoped to appoint initially in the salary range up to £5,010 plus F.S.S.U./U.S.S. benefits.

Applications (one copy only) with a curriculum vitae and names and addresses of three persons to whom reference should be made, should be sent to the Establishment Officer, University of East Anglia, Norwich NR4 7TJ by April 29, 1976, from whom further particulars may be obtained.

ESSEX
THE UNIVERSITY
BRITISH ELECTION STUDY
RESEARCH OFFICER

Full-time Research Officer, salary scale Grade 1.B, required for the period ending 31 December, 1976, with possible extension until April, 1977. Candidates should have experience in Social Science Computing and in SPSS. The work involves principally computer analysis of the data collected by the Election Study and the preparation of written reports from the analysis.

Applications (six copies, quoting reference 88/48/THES), including a curriculum vitae and the names and addresses of two referees, should reach the Registrar, University of Essex, Wivenhoe Park, Colchester CO4 3SQ, [illegible] April, 1976.

GLASGOW
THE UNIVERSITY
DEPARTMENT OF SLAVONIC LANGUAGES
LECTURESHIP IN RUSSIAN

Applications are invited for a lectureship in Russian. Candidates should be qualified to teach the [illegible] language and the [illegible] the Russian language. Preference will be given to candidates who can in addition contribute to the teaching of Czech or Polish, Philology, and/or [illegible] literature.

The salary will be within the range £3,174 to £4,[illegible] per annum of the Lecturer scale of £3,174 to £6,[illegible] per annum. Initial placing according to qualifications and experience. Appropriate superannuation scheme will apply. Further particulars may be had from the Secretary of the University Court (Room 1J), The University of Glasgow, Glasgow G12 8QQ, with whom applications (8 copies) giving the names and addresses of three referees should be lodged on or before [illegible] 1976. In reply please quote Ref. No. 3780[illegible].

ESSEX
THE UNIVERSITY
TEMPORARY LECTURESHIP ECONOMICS

Applications are invited for the post of temporary [illegible] in the Department of [illegible] for appointment from [illegible] ber, 1976.

Applications (six copies, quoting reference [illegible] THES) including a curriculum vitae and the names and addresses of two referees should reach the Registrar, University of Essex, Wivenhoe Park, Colchester CO4 3SQ, from whom further particulars are available, by 24th April, 1976.

GLASGOW
THE UNIVERSITY
DEPARTMENT OF EXTRA-MURAL AND ADULT EDUCATION
LECTURESHIP IN SOCIAL STUDIES

Applications are invited for the post of LECTURER IN SOCIAL STUDIES to commence on 1st September, [illegible] Candidates should have a good honours degree in Sociology, Psychology or Social Administration. A [illegible] interest in Social or [illegible] Psychology would be an advantage. The salary will be within the range £3,[illegible] £4,602 per annum of the Lecturers' scale of £3,174-£6,446 per annum. Superannuation scheme will apply.

Further particulars may be had from the Secretary of the University Court (Room [illegible]), The University of Glasgow, Glasgow G12 8QQ, with whom applications (8 copies) giving the names and addresses of three referees should be lodged on or before 21st May, [illegible] In reply please quote Ref. No. 3781/66.

GLASGOW
THE UNIVERSITY
LECTURESHIP IN (GENERAL PHILOSOPHY)

Applications are invited for a Lectureship in (General Philosophy) [illegible] those whose main interests lie within Logic, Theory of Knowledge, Metaphysics, Philosophy of Science, Philosophy of Social Science or Aesthetics. The salary will be within the range £3,174-£4,[illegible] per annum of the Lecturers' scale of £3,174-£6,446 per annum. Initial placement according to qualifications and experience. Appropriate superannuation scheme will apply.

Further particulars may be had from the Secretary of the University Court (Room [illegible]), The University of Glasgow, Glasgow G12 8QQ, with whom applications (eight copies) giving the names and addresses of three referees should be lodged on or before 30th April, 1976. In reply please quote Ref. No. 3779.

HONG KONG
THE UNIVERSITY
LECTURESHIP/ASSISTANT LECTURESHIP IN ZOOLOGY

Applications are invited for the post of Lecturer/Assistant Lecturer in Zoology. Preference will be given to applicants with a particular interest in Genetics.

Annual salaries (superannuable) are: Lecturer HK$53,300 by [illegible] (bar) HK$58,860 [illegible] to HK$75,360 [illegible] HK$53,000; Assistant Lecturer HK$37,760 by [illegible] HK$48,660 (£1 equals HK$[illegible] approx.). Starting salary will depend on qualifications and experience.

Further particulars and application forms may be obtained from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF or the Assistant Secretary (Appointments), University of Hong Kong, Hong Kong. Closing date for applications is 31 May, 1976.

KENT
THE UNIVERSITY
Canterbury
TEMPORARY LECTURESHIP HISTORY

Applications are invited for a temporary appointment as LECTURER in HISTORY from September 1, 1976 to June, 1977, to cover the [illegible] absence of a permanent member of staff. The successful applicant will be expected to contribute to courses on the History of the U.S.A. from Independence to the present. The appointment will be on the lower part of the scale £3,174 to £6,446.

Further particulars and application forms may be obtained from the Assistant Registrar, Faculty of Humanities, The Registry, The University, Canterbury, Kent, quoting reference A.10/76, to whom completed applications must be returned by April 30, 1976.

LONDON
THOMAS CORAM RESEARCH INSTITUTE

ECONOMIST OR OPERATIONAL RESEARCH ANALYST to work in research unit [illegible]

Universities continued

LEEDS
THE UNIVERSITY
SCHOOL OF EDUCATION

Applications are invited for the post of TEMPORARY LECTURER IN EDUCATION for a period of three years. Salary on the scale £3,174 to [illegible]. Candidates should be qualified in the field of the Teaching of English and have school teaching experience. A higher degree in education is desirable.

Application forms and further particulars may be obtained from the Registrar, The University, Leeds [illegible], quoting reference [illegible]. Closing date April 22, 1976.

LONDON
BEDFORD COLLEGE
(University of London)
DEPARTMENT OF BOTANY

POSTDOCTORAL ASSISTANT to work on aspects of the hormone physiology of roots with particular reference to gravitational and mechanical stresses. Applicants should possess at least a good honours degree in Botany with specialisation in the physiology and biochemistry of growth. Postgraduate research experience in phytohormone extraction, purification and assay and radio-isotope studies a considerable advantage.

The above post is for work on a project expected to continue until October, 1978, and funded by the Agricultural Research Council.

The appointment will be made within the gross salary range £3,316 to £4,440 per annum according to qualifications and relevant experience. Professional inquiries may be made of Professor Audus (Ext. 312). Application forms, etc., which should be returned by April 22, 1976, may be obtained from the Assistant Secretary (Personnel), Bedford College, Regent's Park, London NW1 4NS (telephone: 01-486 4400 Ext. 312).

LONDON
THE UNIVERSITY
(Amended Advertisement)
CHAIR OF EDUCATION AT INSTITUTE OF EDUCATION

The Senate invites applications for the above Chair which will become vacant on the retirement of Professor Bruce Pattison. The Professor will be concerned with the teaching of English as a foreign language and will be expected to have qualifications and experience in English, Education and the education of teachers. Applications (10 copies) should be received not later than 3rd May, 1976, by the Academic Registrar (THES), University of London, Senate House, London WC1E 7HU, from whom further particulars may be obtained.

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
CHAIR IN THE DEPARTMENT OF CIVIL AND STRUCTURAL ENGINEERING

Following the transfer of Professor B. S. Gill to the Department of Mechanical Engineering, Professor D. M. Brotton has taken over as Head of Department. Applications are now invited for the third Chair in this large and well established department. No specific aspect of Civil and Structural is excluded, and candidates are requested to indicate their field of interest.

Requests for application forms and further particulars should be addressed to the Registrar, U.M.I.S.T., P.O. Box 88, Manchester M60 1QD, quoting reference number C/[illegible]/CJ, to whom completed applications should be returned by 14th May, 1976.

LONDON
THE UNIVERSITY
LONDON SCHOOL OF ECONOMICS

Applications are invited for appointment from 1 October, 1976, to a LECTURESHIP in SOCIAL ANTHROPOLOGY, for one year or possibly more. The appointment will be on the salary scale for lecturers of £3,174 to £6,446 a year plus £480 a year London Allowance and superannuation benefits. In assessing the starting salary, consideration will be given to qualifications, age and experience.

Applications should be received not later than 26 April, 1976, by the Administrative Officer (Room H.510), The London School of Economics and Political Science, Houghton Street, London WC2A 2AE, from whom application forms may be obtained.

THE OPEN UNIVERSITY
FACULTY OF EDUCATIONAL STUDIES
LECTURESHIP

Applications are invited for the post of Lecturer in Educational Studies to work in the Curriculum Studies discipline group.

Candidates should ideally have broad practical experience, a background in Educational Studies and preferably a Higher Degree. Preference will be given to candidates whose work and interests are in the area of Cultural Studies. However, this should not deter applicants from different but relevant disciplinary backgrounds to the study of the curriculum, from applying. The successful candidate will be working in an inter-disciplinary course team and will be expected to take a full part in the development of new courses and the maintenance of on-going courses within the Curriculum Studies area.

The post is a permanent one. Salary within the range: £3,174 to £6,446 per annum with U.S.S. benefits.

Application forms and further particulars are obtainable by postcard requests only please, stating sender's name and address, from the Personnel Manager (CS0), The Open University, P.O. Box 75, Walton Hall, Milton Keynes, MK7 6AL. Telephone: Milton Keynes 63868/9. Closing date: April 23, 1976.

MANCHESTER
THE UNIVERSITY
CHAIR OF [illegible] EDUCATION

[illegible]

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY

Applications are invited for a post of

RESEARCH ASSISTANT

in the

DEPARTMENT OF BUILDING.

The post is financed by the S.R.C. for the period July, 1976—September, 1978. The successful applicant will be required to carry out an experimental study of water movement in porous building materials. Applicants should be graduates preferably with a Ph.D. or an equivalent qualification and should possess an aptitude for experimental work. Research experience in a related field including, for example, transport processes in solution, or water movement in unsaturated media, or structure of porous solids would be a particular advantage but this is not an essential requirement.

Salary will be in range 1B, £2,766-£3,990 per annum.

Letters of inquiry giving brief details of qualifications and experience should be addressed to Professor R. Pilcher, Department of Building, UMIST, P.O. Box 88, Manchester M60 1QD, from whom further particulars and application forms may be obtained.

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
LECTURER IN OPERATIONAL RESEARCH

Applications are invited from candidates of either sex for this post in the Department of Management Sciences to teach in the Operational Research field and assist with more general mathematical and statistical courses. Public sector experience in applications of Operational Research particularly welcome.

Salary within the scale £3,174 to £6,446 per annum.

Application forms and further particulars obtainable from the Registrar, UMIST, P.O. Box 88, Manchester M60 1QD, to whom applications should be returned by 7th May, 1976. Quote reference MS/24/CJ.

NEW ZEALAND
MASSEY UNIVERSITY-Palmerston North
SENIOR LECTURER IN POULTRY PATHOLOGY AND MEDICINE

Applications are invited for the above-mentioned position in the Department of Veterinary Pathology and Public Health. The successful applicant will be required to give instruction in poultry pathology and medicine to both undergraduate and postgraduate students. Excellent opportunities exist for the development of research interests. An interest in fish pathology could be an advantage but is not essential. Further details can be obtained from the Head of the Department, Professor R. W. Manktelow.

The salary will be in the range NZ$10,520-NZ$12,445.

Applications close with the Registrar on 14 June, 1976.

THE OPEN UNIVERSITY
INSTITUTE OF EDUCATIONAL TECHNOLOGY
SENIOR LECTURER IN EDUCATIONAL ASSESSMENT

Applications are invited for the post of Senior Lecturer in Educational Assessment in the Institute of Educational Technology. Candidates must have a higher degree in educational assessment or educational psychology. Considerable knowledge of psychometrics and applied statistics is essential. Computing or data processing expertise is desirable. The successful candidate will lead a small team concerned with improving existing student assessment techniques in the University and introducing new ones. This is an opportunity for original work in a problematical area in higher education.

[illegible]

Further particulars are available, by postcard requests only please, stating sender's name and address, from the Personnel Manager (EA2), The Open University, Box 75, Walton Hall, Milton Keynes, MK7 6AL. Telephone: Milton Keynes 63868/9. Closing date: April 30, 1976.

SALFORD
THE UNIVERSITY
DEPARTMENT OF MODERN LANGUAGES
LECTURESHIP IN FRENCH

Applications are invited from candidates with specialisations in any field of French Studies for the above post tenable from 1 October, 1976, or as soon as possible thereafter. Preference may be given to those who can also offer Italian or Spanish. Those who applied in response to the University's recent advertisement for a Senior Lectureship/Lectureship in French will automatically be considered.

Salary scale—£3,174 to £6,446 per annum, U.S.S./F.S.S.U.

Further particulars and application forms may be obtained from the Registrar, University of Salford, Salford M5 4WT, to whom completed applications should be returned not later than 30 April, 1976, quoting reference ML/40/THES.

OXFORD
THE UNIVERSITY

[illegible]

READING
THE UNIVERSITY
LECTURESHIP IN PSYCHOLOGY

Applications are invited from candidates with interests and qualifications in Experimental Child Psychology. The duties include teaching an advanced undergraduate course in Developmental Psychology and supervision of postgraduate research students. The successful candidate should be prepared to take up the post not later than October 1, 1976.

Further information may be obtained from the Registrar (Room 214, Whiteknights House), The University, Whiteknights, Reading RG6 2AH, by whom applications should be received not later than May 15, 1976.

RHODESIA
THE UNIVERSITY
INSTITUTE OF MINING RESEARCH
METALLURGIST

Applications are invited for the post of Metallurgist at the Institute of Mining Research, University of Rhodesia. This is a permanent post and the successful applicant will be required to carry out full-time research, mainly of an applied nature. Initially the research will be pyrometallurgical and will be concentrated in the ferrous field, relating in particular to aspects of ferroalloy production. However, non-ferrous pyrometallurgical and hydrometallurgical investigations are likely. The research covers a wide field of interest and requires the successful applicant to be versatile and to maintain close contact with industry.

The post affords an excellent opportunity to gain a thorough knowledge of important problems in extractive and process metallurgy.

Registration of a suitable research project for a higher degree will be encouraged.

Applicants for the post should have a B.Sc. (Hons.) Degree in metallurgy, although applicants with other science or engineering degrees will be considered.

Further details concerning the above post may be obtained by writing to the Director of the Institute of Mining Research, University of Rhodesia, P.O. Box MP. 167, Mount Pleasant, Salisbury, Rhodesia.

Salary Scale: £4,138 by £220 to £5,258 by £250 to £6,[illegible].

Family passages and allowance for transport of effects on appointment. Installation loan of up to half of one year's salary if required. Unfurnished University accommodation guaranteed for a period of at least three years for persons recruited from outside Rhodesia. Sabbatical visits with travel allowance. Generous ordinary leave. Superannuation and medical aid schemes.

Applications: (6 copies) giving full personal particulars (including full names, place and date of birth, etc.), qualifications, experience and publications, and naming three referees, should be submitted by 30th April, 1976, to the Assistant Registrar (Science), University of Rhodesia, P.O. Box MP. 167, Mount Pleasant, Salisbury, Rhodesia. Applicants from outside Southern Africa should send a copy of their application to the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

SHEFFIELD
THE UNIVERSITY
DEPARTMENT OF PSYCHOLOGY
RESEARCH ASSISTANTS

for a multi-disciplinary team

Applications are invited for full-time appointments (three years) in the Evaluation Research Group being formed in connexion with the Sheffield Development Project on Services for the Mentally Handicapped. Previous experience in this field, while desirable, is not essential. Suitable qualifications may be in psychology, sociology, economics or obtained through postgraduate field research in the organizational area.

Salary in the ranges £3,174 to £4,418 (two posts); £5,010 to £6,446 (one post).

Further details may be obtained from the Director, Professor Alastair Heron, Department of Psychology, The University, Sheffield S10 2TN, to whom applications (including the names of three referees) should be addressed by 10 May, 1976.

Please quote ref.: R568/DI.

LONDON
POLYTECHNIC OF THE SOUTH BANK
SENIOR LECTURER OR LECTURER GRADE II
in
TOWN PLANNING
(Ref. ST.18)

This new post in an expanding department will involve teaching various aspects of Planning Theory, practice and Techniques (with some emphasis on urban problems and planning activity). Students range from H.N.C. to Post-graduate level, in both the Department of Town Planning and other departments in the Faculty of the Built Environment.

An opportunity will be given to a selected applicant without teaching experience to acquire a teaching qualification.

Membership of the Royal Town Planning Institute is desirable.

Salary scale within the range (subject to confirmation) £3,942 to £6,156 for Lecturer II; £5,694 to £7,080 for Senior Lecturer.

Further particulars and application forms from the Staffing Officer (Room 905), Polytechnic of the South Bank, Borough Road, London SE1 0AA. Tel. 01-928 8989.

Closing date for receipt of applications, 28th April.

SHEFFIELD
THE UNIVERSITY
DEPARTMENT OF GEOGRAPHY

Applications are invited for [illegible] PHYSICAL GEOGRAPHY [illegible]

[illegible] LECTURER in Human Geography [illegible] 1976. Salary on range £3,174 to [illegible]

Further particulars [illegible] The University, Sheffield S10 2TN, to whom applications (5 copies) should be sent by May [illegible], quoting Ref. R.772/DI.

THE NETHERLANDS
THE INSTITUTE OF SOCIAL STUDIES

inviting applications for the post of

LECTURER OR SENIOR LECTURER IN STATISTICS

The appointment will be for one or two years, depending on availability, preferably beginning September 1, 1976, the possibility of conversion into a four-year contract will be considered before the end of the first year.

Candidates should have a good degree in Statistics, or in Social Sciences with specialisation in research techniques, and should have field, teaching or research experience in Sampling, Survey Techniques and allied subjects in relation to social statistics preferably in Less Developed Countries. A knowledge of Demography is also desirable. He will be expected to assist and advise his colleagues on statistical matters connected with their research. In case the appointment is extended he should also be ready to accept temporary assignments abroad in connection with his work in the Institute. All teaching is done in English.

The salary scale is in accordance with the Dutch governmental system.

The initial rank and position on the scale will depend on qualifications and experience.

Previous applicants need not reapply.

Applications with curriculum vitae and names and addresses of 3 referees should be sent to: The Rector, Institute of Social Studies, Molenstraat 27, The Hague, before May 15, 1976, mentioning the letters STAT.

ST. ANDREWS
THE UNIVERSITY
DEPARTMENT OF GEOGRAPHY

Applications are invited for a LECTURESHIP in the Department of GEOGRAPHY tenable from September/October, 1976. Preference will be given to candidates with teaching and research interests in the reconstruction of past environments. Salary on the lower part of the scale £3,174 to £6,446; F.S.S.U./U.S.S.

Applications (two copies preferably in typescript) with the names of three referees should be lodged by 7th May with Establishments Officer of the University, College Gate, St. Andrews, Fife, from whom further particulars may be obtained.

ST. ANDREWS
THE UNIVERSITY
DEPARTMENT OF STATISTICS

Applications are invited for a LECTURESHIP in the Department of STATISTICS tenable from September/October, 1976. Preference will be given to candidates with interests either in mathematical statistics or in operational research. Salary at the appropriate point on scale £3,174 to £6,446, starting salary probably not above £4,602; F.S.S.U./U.S.S.

Applications (two copies, preferably in typescript) with the names of three referees should be lodged by 20th May, 1976, with the Establishments Officer of the University, College Gate, St. Andrews, Fife, from whom further particulars may be obtained.

WARWICK
THE UNIVERSITY
MIDLANDS INDUSTRIES RESEARCH FELLOWSHIP IN FATIGUE OR VIBRATION

Application are invited from well-qualified applicants with relevant experience for a research fellowship in the Department of Engineering for work on one of several projects involving experimental and computer techniques applied to fatigue or vibration.

Initial salary in the scale either 1A: £3,174 x £201—£4,410 per annum or in 1B: £2,766 x £204—£3,990 (bar) x £204—£4,602 per annum (plus superannuation) according to experience and qualifications.

The appointment will be for two years in the first instance, from the earliest date possible.

Application forms and further particulars from the Academic Registrar, University of Warwick, Coventry CV4 7AL, quoting Ref. No. 35/3F/76. Closing date for receipt of applications is 30th April, 1976.

WARWICK
THE UNIVERSITY
RESEARCH FELLOW IN BIOLOGICAL SCIENCES

A postdoctoral research fellow is required in the Department of Biological Sciences, tenable from September/October, 1976, to investigate both the production, and the action of interferon on viral function in a series of clonally related transformed cell lines. The fellow would work in collaboration with groups investigating the mechanism of R.N.A. tumour virus multiplication and the mechanism of interferon formation. The post is supported by the Cancer Research Campaign until September, 1978.

The salary will be either on the Scale 1B: £2,766 by £204 to £3,990 (bar) by £204 to £4,602 or 1A: £3,174 by £204 to £5,418 per annum, depending on experience and qualifications.

Application forms and further particulars from the Academic Registrar [illegible] cations May 5, 1976.

Fellowships and Studentships

THE NEW UNIVERSITY OF ULSTER
AND
DEPARTMENT OF EDUCATION FOR
NORTHERN IRELAND

POSTGRADUATE STUDENTSHIPS
(QUOTA AWARDS)

For the academic year 1976/77 the Department has allocated a number of quota studentships for postgraduate research leading to the degrees of M.Phil/D.Phil. and for advanced courses leading to the degrees of M.Sc./M.A.

Applications are invited for degree programmes in subject areas under :—

- The School of Physical Sciences
- The School of Biological and Environmental Studies
- The School of Social Sciences
- The School of Humanities
- The Education Centre
- The Institute of Continuing Education at Magee University College, Londonderry

To be eligible for an award an applicant must normally be a British subject ordinarily resident in Northern Ireland and should hold a good honours degree. Applications may be submitted in anticipation of the results of final examinations for honours degrees.

Application forms and further particulars should be obtained from The Registrar, The New University of Ulster, Coleraine, Co. Londonderry, Northern Ireland (quoting Ref: 76/26), to whom completed applications should be returned not later than 14th May, 1976.

UNIVERSITY OF MANCHESTER
INSTITUTE OF SCIENCE
& TECHNOLOGY
DEPARTMENT OF
MANAGEMENT SCIENCES

M. Sc. IN MANAGEMENT SCIENCES

STUDENTSHIPS AND S.S.R.C.
FUNDING AVAILABLE IN THE RANGE OF
£1,085-£1,930 p.a.
plus fees and approved expenses.

The Department of Management Sciences is the oldest and largest department of its kind in the U.K. It is a multi-disciplinary department with 5 Professors and 60 teaching staff.

Students have the opportunity to study for an M.Sc. by research only, or by taught course and research. The course structure and duration will be geared to the background of the student and his chosen research field. S.S.R.C. funds may be available to allow suitable students to proceed to Ph.D.

Subject areas in which research may be undertaken are: Marketing, Production, Finance & Control, Quantitative Techniques, Industrial Relations, Organisational Behaviour, International Business Organisation and Management of Innovation.

Studentships in the Department have been sponsored by MIDLAND BANK LTD., THE WOLFSON FOUNDATION, RENTOKIL LTD., UNITED BISCUITS LTD., WATNEY MANN LTD. and MIDLAND ALUMINIUM LTD., S.S.R.C. QUOTA AWARDS, and/ or Bank Loans may be available to suitably qualified students.

Application forms and details of the various programmes and funding can be obtained from : Professor R. Beresford Dew, Chairman, Department of Management Sciences, U.M.I.S.T., P.O. Box 88, Manchester M60 1QD.

SHEFFIELD
THE UNIVERSITY
DIVISION OF ECONOMIC STUDIES

Applications are invited from GRADUATES and STUDENTS who expect to graduate this year with a good honours degree (1st or 2.1) in ECONOMICS for a two-year SSRC Research Studentship. Sheffield University is a recognized centre for the study of Monetary Economics and Finance and preference will be given to candidates wishing to specialize in this area. Other applications, however, will be considered. The successful candidate will have the opportunity to assist in undergraduate teaching and also attend some of the taught courses given for the Degree of M.A. in Economics of Finance. Candidates will be registered for the Degree of M.A. in the first instance with the possibility of upgrading to Ph.D. in due course.

For further details, write to Dr. P. J. Hayward, Division of Economic Studies, The University, Sheffield S10 2TN, quoting reference R.356/DI.

CAMBRIDGE
ST. JOHN'S COLLEGE
FELLOWSHIP IN LAW

Applications are invited for a teaching Fellowship in Law, tenable from 1 October, 1976, and remunerated according to University scales.

Full details may be obtained from the Master, to whom applications, including the names of two referees, should be submitted by 30 April.

NEWCASTLE UPON TYNE
THE UNIVERSITY
ROBERT WOOD FELLOWSHIP
DEPARTMENT OF CHEMICAL ENGINEERING

Applications are invited for the Robert Wood Fellowship tenable in the Department of Chemical Engineering. Applicants must hold a B.Sc. degree of the University of Newcastle upon Tyne or of Kings College in the University of Durham (or be prospective B.Sc. graduates of the University of Newcastle upon Tyne). Applicants for the Fellowship must intend to undertake research in Chemical Engineering topics. The Fellowship will be of the value of £1,035 per annum plus fees.

Further particulars and application forms may be obtained from the Registrar of the University of Newcastle upon Tyne, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU. Completed application forms should be submitted to the Head of the Department of Chemical Engineering by 30th June, 1976.

LIVERPOOL
THE POLYTECHNIC
DEPARTMENT OF BIOLOGY AND BRITISH MUSEUM (Natural History)
SRC (CASE) STUDENTSHIP

Applications are invited for an SRC (CASE) Studentship tenable from the 1st October, 1976, to work on the taxonomy and evolutionary trends in Godwits (Limosa: Charadriiformes).

The successful candidate will work under the direction of Dr. W. G. Hale (Liverpool Polytechnic) and Dr. P. J. K. Burton (British Museum, Natural History).

Further details from The Secretary, Department of Biology, Liverpool Polytechnic, Byrom Street, Liverpool L3 3AF.

Fellowships and Studentships continued

HASTINGS RASHDALL STUDENTSHIP AND ASSISTANT CHAPLAINCY

The Colleges invite applications for a Hastings Rashdall Studentship in Theology which shall be held with the post of Assistant Chaplain. Candidates should be in Anglican Orders or expect to be so by 1st October, 1976, when the appointment begins. The duties will be to undertake advanced study in a theological subject and to assist the Dean of Divinity in conducting College services and in pastoral work.

A stipend of £1,250 per annum will be paid, and rooms in College, luncheons and dinners will be free. The Assistant Chaplain will be a member of the Senior Common Room.

Applications should reach the Warden, New College, Oxford, by April 17th, 1976. Further particulars may be obtained from the Warden.

Universities continued

WARWICK
THE UNIVERSITY
BIOCHEMICAL RESEARCH FELLOWSHIP

Applications are invited for a two year SSRC funded Biochemical Research Fellowship, at Lecturer/Senior Lecturer level, tenable from October, 1976, in the School of Law. Applicants should have research experience in any of the social sciences other than Law, a general interest in developing socio-legal research and particular interests in the area of Urban Studies covering such areas as planning, housing and related subjects.

Salary is a point on the Research Range II scale £5,010 to £6,221, £6,716 per annum.

Further particulars and application forms from the Appointments Registrar, University of Warwick, Coventry CV4 7AL, quoting Ref. No. A/76/2. Closing date for receipt of applications is 30th April, 1976.

Polytechnics

Faculty of Environmental Studies
Department of Civil Engineering

Principal Lecturer joint Course Tutor for degree course: experience in design and operations of CNAA courses desirable. Post includes final year teaching and supervision of postgraduate research. Candidates must have degree in Civil Engineering and preferably teaching, industrial or research experience. (Ref. S/AO.273A)

Lecturer II/Senior Lecturer Lecturer required to teach on HNC, HND or degree courses. Candidates should possess degree in Civil Engineering and have some industrial and/or research experience. (Ref. S/AO.273B)

Faculty of Business
Department of Law

Lecturer II/Senior Lecturer in Law Applications are invited from candidates whose major interests are in Property Law and/or Commercial Law to teach on the B.A. (Honours) degree in Law and on other courses in the Faculty of Business. Applicants should have an honours degree in Law; teaching experience would be desirable. (Ref. S/AO.273C)

Faculty of Human Sciences
Department of Sociology

Lecturer II in Sociology required to teach on B.A. Sociology with Professional Studies degree course (C.N.A.A.). Applicants should have broad sociological interests, but interests in the sociology of deviancy, political sociology, historical sociology or the comparative sociology of contemporary societies are desirable. Experience and/or research in applied fields would be an advantage. (Ref. S/AO.273D)

Faculty of Arts
Department of Applied Philosophy

Associate Lecturer (Part-time) in Related Studies for programmes in the Faculty of Business. (Ref. S/AO.273E)

Salary Scales: Principal Lecturer £6,940-£7,578
Senior Lecturer £5,031-£5,417
Lecturer II £3,279-£5,493

Associate Lecturer post proportionate part of Lecturer II scale. (Plus appropriate London Allowance).

Further details and application form from: Academic Staffing Office (S), North East London Polytechnic, Forest Road, London E17 4JB. Tel. 01-527 5272 Ext. 167.
Closing date 30th April, 1976.
Please quote above reference no.

NELP North East London Polytechnic

Manchester Polytechnic
DEAN
FACULTY OF TECHNOLOGY

Applications are invited for the post of Dean of the John Dalton Faculty of Technology.

The Faculty covers the main subject areas of Science and Engineering with seven Departments.

Salary—£11,271.

For further particulars and application form (returnable by 6th May, 1976) please send a self-addressed envelope marked "Ref 64" to the Secretary, Manchester Polytechnic, Lower Ormond Street, Manchester M15 6BX.

Principal Lecturer or Senior Lecturer/Lecturer II in Dance

Required for September, 1976, a full-time, or possibly two half-time, lecturer(s) in Dance, to cover some or all of the following specialisms:
- Ballet principle and technique
- The reconstruction of dance works from notations
- Non-European ethnic dance
- Movement analysis, composition and improvisation

Teaching will be mainly on the new B.A. (Hons) Dance Arts course, the first of its kind in Britain, and mainly on undergraduates.

The post(s) will be offered at a level commensurate with the successful candidate's experience and qualifications, i.e. Principal Lecturer £6,297-£7,857, Senior Lecturer £5,031-£5,417, Lecturer II £3,279-£5,493 (all inclusive of London Weighting) per annum (pro rata for half-time appointment).

Please write for application forms and further details, to the first-named, to: Appointments Officer, Middlesex Polytechnic, Trent Park, Cockfosters, Barnet, Herts EN4 0PT (Telephone: 01-440 5611). Closing date: Friday, 30th April (inclusive of London Weighting).

The Middlesex Polytechnic is an Equal Opportunity Employer.

Polytechnics continued

The Polytechnic of North London

Faculty of Economics and Administrative Studies

Principal Lecturer in Business Studies.
(Faculty Based Appointment).
Major responsibility for development and leadership of proposed Business Studies degree.
Should have strong academic background and experience in teaching one or more areas of Business Studies to final Honours level.

Principal Lecturer in Economics.
(Department of Business Studies).
To develop applied economic teaching and research in a multi-disciplinary Business Studies context. Quantitative background essential, and appropriate teaching, research and/or business experience is desirable.

Lecturer (Grade II) in Law.
(Department of Business Studies).
To teach legal aspects of commerce and industry on a wide range of multi-disciplinary business studies courses. Should have post-graduate qualifications, and relevant teaching and business experience.

Lecturer (Grade II) in Accounting.
(Department of Accounting and Administrative Studies).
To teach accounting subjects to final year degree level. Should have a professional accounting qualification and a good degree in a relevant area.

Lecturer (Grade II) in Business Policy.
(Department of Accounting and Administrative Studies).
To teach business policy/corporate strategy on degree and professional courses. Should have a first degree and preferably a higher degree in an appropriate area and some business experience.

Faculty of the Environment

Principal Lecturer in Town Planning.
(Department of Environmental Design).

Lecturer (Grade II) in Town Planning.
(Department of Environmental Design).
To teach on Town Planning courses. Specialist interest in one of the areas of Theory of Planning, Planning Techniques, Urban Design, Decision Processes an advantage. The Principal Lecturer will give leadership in the subject areas of planning and the establishment of links with architecture, urban studies and geography.

Lecturer (Grade II) in Geography – Overseas Development.
(Department of Geography).
To teach in final Honours level in subjects including environmental management and urban studies with particular reference to the developing nations. Should have good degree, and preferably post-graduate research experience in a relevant area.

Faculty of Science and Technology

Head of Department of Food Sciences (Grade IV).
To provide academic and administrative leadership, particularly in the planning and evaluation of new courses and the integration of the department with other areas of the Polytechnic and with industry. Should have high-level experience and, preferably, a degree in the areas of Dietetics, Home Economics and Institutional Management. Specialising in one of the areas.

Lecturer (Grade II) in Mathematics.
(Department of Mathematics).
To teach Mathematical Methods and Pure Mathematics on degree and diploma courses.
Should have a degree and preferably post-graduate qualification.
Teaching experience desirable but not essential.

Faculty of Humanities

Lecturer (Grade II) in History.
(Department of History and Philosophy).
To teach an Honours degree level in History and Philosophy courses.
Candidates should be qualified to teach Economic and Political History as an advantage.
History would be an additional advantage.

Salary Scales:
Head of Department (IV) £6,750-£7,578 plus £351 London Allowance.
Principal Lecturer £5,940-£6,629 (bar) £7,578 plus £351 London Allowance.
Lecturer (Grade II) £3,279-£5,493 plus £351 London Allowance.

Under existing arrangement, staff at the top of the Lecturer (Grade II) scale can expect progression to the Senior Lecturer Scale subject to satisfying an efficiency requirement.

Application forms and further particulars (please state post in which interested) from the Establishment Officer, The Polytechnic of North London, Holloway Road, N7 8DB. Tel. 01-607 0177, extn. 6676.

Closing date for applications Monday, May 3rd (Second Week).

The Polytechnic of North London is an Equal Opportunity Employer.

THE POLYTECHNIC OF WALES
POLITECHNIG CYMRU

Applications are invited for the following posts:

Department of Business Studies
PRINCIPAL LECTURER
LAW
Applicants must have experience of teaching Law to degree level.
LECTURER II/SENIOR LECTURER
1. ECONOMICS
2. BUSINESS ADMINISTRATION
The successful candidate will be expected to assist in the field of Industrial Training.

Department of Management Studies
LECTURER II/SENIOR LECTURER
1. PUBLIC SECTOR FINANCE
2. LAW
Applicants must possess an honours degree in Law and appropriate teaching/professional experience.

Department of Arts and Languages
LECTURER II/SENIOR LECTURER
ENGLISH

Department of Civil Engineering and Building
LECTURER II/SENIOR LECTURER
CIVIL ENGINEERING

Salary scales:
Lecturer II—£3,591-£5,805
Senior Lecturer—£5,343-£6,267 (Bar)-£6,729
Principal Lecturer—£6,252-£6,954 (Bar)-£7,890

Further details and application forms (to be returned by 30th April, 1976) may be obtained from:
The Personnel Officer,
The Polytechnic of Wales,
Pontypridd, Mid Glamorgan.
Tel.: Pontypridd 405133.

NORTH STAFFORDSHIRE POLYTECHNIC
DEPARTMENT OF ECONOMICS

LECTURER IN INTERNATIONAL TRADE

Applications are invited for the above post which will be made at the Principal, Senior or Lecturer II level according to qualifications and experience.
The teaching of the department of 15 economists is mainly concerned with CNAA honours degree courses.

Salary scale:
Principal Lecturer £5,940-£7,578
Senior Lecturer £5,031-£5,955 (bar)-£6,417
Lecturer II £3,279-£5,493

Applications form and further particulars may be obtained from the Deputy Director (staffing), North Staffordshire Polytechnic, College Road, Stoke-on-Trent ST4 2DE.

SENIOR LECTURESHIP in CIVIL ENGINEERING

Applications are invited for the above post from candidates possessing a good honours or a higher degree in civil engineering.

Applicants should be specialists in Soil Mechanics and Foundation Engineering and have substantial teaching experience at degree level, together with a research and/or practical professional background. The person appointed will be Subject Leader in Geotechnics for the degree course in civil engineering, and will also be responsible for a major departmental administrative activity.

Salary (currently under review) in accordance with the Senior Lecturer (A) scale viz. £6,000-£6,735 (bar)-£7,716. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application form obtainable from the Principal, Dundee College of Technology, Bell Street, Dundee, DD1 1HG, to whom completed application forms should be returned not later than 23 April, 1976.

dundee college of technology

SHEFFIELD CITY POLYTECHNIC
LIBRARIAN
Grade VI

Applications are invited for the post of Librarian for Sheffield City Polytechnic, serving Sheffield Polytechnic, nursing and City College of Education and Totley-Thornbridge College of Education.

The person appointed will have substantial relevant experience at a very senior level in higher education and must be able to provide professional leadership of a high order to competing library services, throughout the new institution.

Salary Scale: £6,549 to £7,578.

Further details may be obtained from the Principal Librarian, Sheffield City Polytechnic, Pond Street, Sheffield S1 1WB, to whom applications should be addressed, quoting reference S/AO/273 within 14 days of this advertisement.

Administration

OXFORD
KEBLE COLLEGE
APPOINTMENT IN DOMESTIC BURSAR

The College invites applications for the post of Domestic Bursar to take up his or her duties on 1st March, 1977. The College would expect to offer a man or woman aged between 35 and 45, with some experience of administration and/or experience in the management of households, catering and allied fields. The salary will be according to age and experience. Superannuation, housing and London allowance.

Further details may be obtained from the Warden's Secretary.

Applications, with full details of age, qualifications, experience, and the names of two referees, should reach the undersigned by 16th April, 1976.

Polytechnics continued

PLYMOUTH POLYTECHNIC

School of Mathematical Sciences

RESEARCH ASSISTANT IN X-RAY CRYSTALLOGRAPHY

Applications are invited from candidates with, or expecting to obtain, a good honours degree in Physics or Chemistry to work on the structure and properties of antibiotic crystalline materials using mainly X-ray methods. The successful candidate will be expected to register for a higher degree, although post-doctoral applicants can be considered.

The appointment is initially for a period of two years, with the possibility of a third year and carries a starting salary of £2,469 or £2,721 with annual increments.

Research Assistants are expected to undertake up to six hours' teaching weekly during the academic year.

Application forms returnable by 30th April, 1976, can be obtained with further particulars from the Personnel Officer.

PLYMOUTH POLYTECHNIC DRAKE CIRCUS PLYMOUTH PL4 8AA

LONDON BOROUGH OF HOUNSLOW
and
BRITISH & FOREIGN SCHOOL SOCIETY
WEST LONDON INSTITUTE OF HIGHER EDUCATION
(incorporating Borough Road and Maria Grey Colleges of Education and Chiswick Polytechnic)

Required as soon as possible for the new institute which comes into being on the 1st September, 1976.

REGISTRAR
Salary (P.O.2) £6,990-£7,668 (Inc. L.W.)

The Registrar will be Clerk to the Governing Body and Chief Administrative Officer responsible for the non-academic administration of the institute including finance and establishment, premises, supplies and services, domestic and catering arrangements and the secretarial and executive functions, ancillary to the academic work of the institute.

Applications (no forms) with the names of three referees are invited from candidates with graduate or equivalent professional qualifications and with considerable relevant experience of educational administration.

Further details available from Director of Education, Civic Centre, Lampton Road, Hounslow (Tel. 01-570 7728, Ext. 3534).
Closing date: 30th April, 1976.

GENERAL SYNOD OF THE CHURCH OF ENGLAND
BOARD OF EDUCATION

COLLEGES OFFICER AND SECRETARY
TO THE CHURCH COLLEGES OF EDUCATION

Applications are invited for the post of Colleges Officer of the Board and Secretary to the Church Colleges of Education.

The Colleges Officer and Secretary will have the general duty of acquainting himself with developments in higher education and Colleges of Education in particular. The person appointed will need to have a thorough grasp of the principles involved in the major reorientation of the work of the Colleges, and the wide range of responsibilities will need to be seen within the perspective of current changes.

The appointment will date from 1st November, 1976.

Salary £4,386-£6,366, flexible according to age and experience.

Application forms and fuller particulars from the Administrative Secretary, General Synod Board of Education, Church House, Dean's Yard, London, SW1P 3NZ.

Colleges of Education

MIDDLESEX POLYTECHNIC
ST. MARY'S COLLEGE
Strawberry Hill, Twickenham

A LECTURER (or Lecturer II on a Senior Lecturer scale) in Librarianship is sought for September, 1976 to teach on the Library Studies Education, the College's three courses for Diplomas and Certificates in Librarianship.

Applications of the post and qualifications for the post, with the names of two referees, to the Principal, Middlesex Polytechnic, St. Mary's College, Strawberry Hill, Twickenham, Middlesex TW1 4SX, to whom all applications should be addressed, quoting the name of three referees, should reach the College within 14 days of this advertisement.

Librarians

LIVERPOOL
THE POLYTECHNIC
LIVERPOOL POLYTECHNIC
ASSISTANT LIBRARIAN
NON-PROFESSIONAL SCALE
£3,558 to £3,852

Applications are inviting from Chartered Librarians for the post of Assistant Librarian, Liverpool Polytechnic Library, who will be responsible for liaison with the Humanities Library.

Further information and application forms are obtainable from the Staff Officer, Liverpool Polytechnic, Blackburn House, Roe Street, Liverpool L3 2AW. All application forms should be returned within 14 days of the appearance of this advertisement.

Colleges of Art

NORFOLK COUNTY COUNCIL
NORWICH SCHOOL OF ART
PRINCIPAL LECTURER IN GRAPHIC DESIGN

Salary Scale: Burnham £6,252 to £6,954 (bar) to £7,890.

This post is in the Department of Graphic Design (Grade III) which prepares Students for the B.A. Honours Degree of the C.N.A.A. and the East Anglian Regional Certificate in Graphic Design.

Applicants should be experienced designers, teachers and administrators. The successful applicant will be responsible to the Head of Department for developing and implementing departmental policy. The appointment will be from 1st September, 1976. Applications should be received by the school no later than 14 days from the appearance of this advertisement.

Further particulars and forms of application are obtainable from the Chief Administrative Officer, Norwich School of Art, St. George Street, Norwich NR3 1BH. All enquiries should be accompanied by a stamped addressed envelope.

Administration continued

SHEFFIELD
THE UNIVERSITY

A GRADUATE is required for the post of
LIAISON OFFICER
for
STUDENT RECEPTION
UNION WORKING COMMITTEE

Salary: £1,760 (under review)

Further details and application form will be available from The Chairman, Student Reception, 6 Leavygreave Road, Sheffield S3 7RD. The closing date for application is 30th April, 1976.

EALING Technical College
Specialist Centre for Higher Education

Applications are invited for the following vacancies at LI/LII level. Appointments will be from September, 1976. Salary: LI £3,132 to £5,040. LII £3,942 to £6,156 (both inclusive of London Weighting).

20th Century History of Art and Design (1 post)
Qualifications required
Degree or equivalent in History of Art, preferably with special teaching and research interest in 20th century art and design.
The Job
Teaching on the BA (CNAA) in Humanities in which History of Art is a major subject. The work will also include more general courses in the History of Art and Design in the School of Art and Photography.

Law (1 post)
Qualifications required
Law degree and/or professional qualification, plus experience in industry, or local government, or commerce.
The Job
Teaching the law component of courses such as Diploma in Management Studies, HND/HNC in Business Studies Accountancy and Banking.

Librarianship (3 posts)
Qualifications required
Professional librarians with practical experience.
The Job
Teaching librarianship in preparation for the Library Association Examinations.

Physical Education (1 post)
Qualifications required
Diploma of Physical Education.
The Job
To share the teaching and administration of the mixed activities, in particular to be responsible for Netball, Keep-Fit and Ladies' Hockey, and to coach a wide range of sports activities.

Application forms and further details from the Registrar, Ealing Technical College, St. Mary's Road, Ealing W5 5RF. Tel.: 01-579 4111 Ext. 287. Closing date: Wednesday, 28th April, 1976.

Ealing EDUCATION SERVICE

London Borough of Bromley

Subject to certain conditions, removal and storage expenses, disturbance allowances and grants towards legal expenses are payable to teaching staff appointed from outside the London area.

BROMLEY INSTITUTE OF HIGHER EDUCATION
appointment of
DIRECTOR

Applications are invited for the post of DIRECTOR for the Bromley Institute of Higher Education which is to be formed from the Bromley College of Technology, Ravensbourne College of Art & Design and Stockwell College of Education.

The salary is likely to be initially at a point on the scale of £11,136 to £11,646 (Group 8), plus London Allowance (£267) (1975 Salary Scales).

Further information and forms of application may be obtained from the Chief Education Officer, Sunnymead, Bromley Lane, Chislehurst, Kent, BR7 6LH, and returned by 30th April, 1976.

Librarians

SURREY
THE UNIVERSITY
SUB-LIBRARIAN

Applications are invited for a post of Sub-Librarian. Candidates should have a good honours degree and a library qualification. The successful candidate will be required to take over responsibility for the Inter-library Loan Service, Information Desk (a specialist in the subject is desirable) and Reprographic Services and to take charge of the Library on occasions. Previous experience in a university or polytechnic library is essential.

Salary Scale: On an Honours degree, starting at the mean £3,549 to £4,302, plus London Allowance £351. Starting point depending upon qualifications, training and experience.

Assistance may be given towards household removal expenses.

Further details and forms of application, returnable within 14 days from the appearance of this advertisement, from Personnel Officer, Surrey University, Guildford, Surrey, GU2 5XH, by 30th April, 1976.

LONDON
INNER LONDON EDUCATION AUTHORITY
SOUTH WEST LONDON COLLEGE
Tooting Broadway, S.W.17

PERSONAL ASSISTANT to the principal (a post with internal communication, considerable public facilities liaison with the College's academic programme, and undertake duties in connection with applicants.

The successful candidate will also have a limited teaching programme in the field of business and management and after two years would transfer to normal full time teaching with a 2nd programme position.

The appointment is at Lecturer II level.

Salary Scale: On an Honours degree, starting at the mean £3,549 to £4,302, plus London Allowance £351. Starting point depending upon qualifications, training and experience.

Assistance may be given towards household removal expenses.

Further details and forms of application, returnable within 14 days from the appearance of this advertisement, from Personnel Officer, Inner London Education Authority, Stockwell Street, Greenwich, London, S.E.10.

Colleges of Higher Education

CHELMER Institute of Higher Education

(incorporating Brentwood College of Education and Mid-Essex Technical College and School of Art)

Applications are invited from suitably qualified and experienced staff for the following academic appointments with effect from 1st September, 1976:—

Head of Student Services

Principal Lecturer
Salary scale £6,252-£6,954 Bar-£7,890 p.a.
To head a team of staff providing student services at the various college sites including liaison with students' unions, counselling, accommodation, physical recreation and medical welfare, vocational guidance and legal services.

Faculty of Social Sciences

Head of Department of Applied Social Sciences
Grade III salary scale £5,543-£7,335 p.a.
To co-ordinate the Social Work Section (which offers the 3 year C.C.S.W. course and has a commitment to develop 2 year courses), the General Studies Section (which will coordinate this work throughout the Institute), and the Information Sciences Section (which offers a range of courses in Communications and Library Studies).
Candidates should have distinctive academic qualifications relevant to one of the areas of work of the department and significant successful experience of teaching one or more courses which the department will control.

Principal Lecturer in Social Work
Salary scale £6,252-£6,954 Bar—£7,890 p.a.
Applicants should have substantial experience of course development and be capable of teaching to degree level, and should be professionally qualified social workers.
The person appointed will lead a newly-established Section within the Faculty and be responsible for developing training courses for professional and paraprofessional social workers.

Senior Lecturer in General Studies
Salary scale £5,343-£6,267 Bar—£6,729 p.a.
Applicants should have substantial experience of organising and teaching General Studies for day-release and full-time courses in further and higher education.
The person appointed will lead a team of General Studies Lecturers and will be responsible for the development of organisation of General Studies Programmes within the Institute.

Department of Electrical Engineering and Applied Physics

Lecturer Grade II
Graduate or Chartered Engineer required from September, 1976, to teach electrical power and control engineering subjects. An interest in lighting engineering would be an advantage. Salary scale £3,591-£5,805 p.a.

Removal expenses and disturbance allowance available in approved cases.

Application forms and further particulars are available from the Acting Principal, Mid-Essex College, Victoria Road South, Chelmsford, CM1 1LL.

Courses

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY

The Department proposes to recommence, in October, 1976, its one-year full-time course leading to the degree of M.Sc. by examination and dissertation. The course will be especially suitable for teachers (primary or secondary or tertiary education) but is not in any sense designed exclusively for such people.

Anyone interested (who must have or expect to have a 2.1 or higher or its equivalent) is invited to write for further information to Professor D. J. de Solla Price, Director of History of Science and Technology, Institute of Science and Technology, Sackville Street, Manchester, M60 1QD.

READING
THE UNIVERSITY
DEPARTMENT OF SOCIOLOGY
M.A. IN EMPIRICAL SOCIOLOGY

In addition to the existing M.A. course in theoretical sociology, the Sociology Department is now offering a one-year M.A. course in Empirical Sociology. Applicants for this course should normally be expected to obtain 2:1 or higher honours class in Sociology or related disciplines, or possessing equivalent qualifications. Successful applicants will be expected to take two years of study, including a substantial dissertation, and the course will include:
(a) Stratification and the role of inequality in spanning societies
(b) Morals, values and ethics in the traditional societies of the Mediterranean, Asia and Africa
(c) The sociology of art
(d) Morals, law and ethics in contemporary societies
(e) Understanding better advertising
(f) Bureaucracies and society in Eastern Europe
In addition to being examined in two of these areas, persons admitted to the course will have to submit a dissertation on some allied subject.
The course is recognised by the SSRC as suitable for the training of postgraduate students.
Prospectus and application to the Senior Assistant Registrar, Room 322, Whiteknights House, The University, Reading, Reading, Berkshire, RG6 2AH.